



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/economy

Tischler und Sohn (USA) Ltd.
Six Suburban Avenue
Stamford, CT 06901

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER – Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/ or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series “Mahogany Impact” Inswing Wood Casement Window -- L.M.I.

APPROVAL DOCUMENT: Drawing No. 1531, titled “In-Swing Impact Wood Casement Window”, sheets 01 through 14 of 14, dated 04/03/08, with revision “B1”, dated 09/04/13, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E., bearing the Miami-Dade County Product Control Section Revision stamp with the Notice of Acceptance number and Expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, Wedel (Schleswig-Holstein), Germany, series, and following statement: “Miami-Dade County Product Control Approved”, unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 13-1105.09 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Jaime D. Gascon, P. E.



J. Gascon
7/2/14

NOA No. 14-0428.21
Expiration Date: January 08, 2019
Approval Date: July 10, 2014
Page 1

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
(Submitted under previous NOA No. 08-0804.16)
2. Drawing No. 1531, titled "In-Swing Impact Wood Casement Window", sheets 01 through 14 of 14, dated 04/03/08, with revision "B1", dated 09/04/13, prepared by W. W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.
(Submitted under previous NOA No. 13-1105.09)

B. TESTS

1. Test reports on:
 - 1) Air Infiltration Test, per FBC, TAS 202-94
 - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 20-94
 - 3) Water Resistance Test, per FBC, TAS 202-94
 - 4) Large Missile Impact Test per FBC, TAS 201-94
 - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94
 - 6) Forced Entry Test, per FBC 2411 3.2.1, TAS 202-94along with marked-up drawings and installation diagram of fixed and operable wood casement windows, prepared by Architectural Testing, Inc., Test Report No. ATI-77324.01-109-18, dated 06/30/08, signed and sealed by Michael D. Stremmel, P. E.
(Submitted under NOA No. 08-0804.16)

C. CALCULATIONS


1. Anchor verification calculations and structural analysis, complying with FBC-2004 and FBC-2007, prepared by W. W. Schafer Engineering & Consulting, P. A., dated 07/28/08, and updated to FBC-2010 on 10/28/13, signed and sealed by Warren W. Schafer, P. E.
(Submitted under previous NOA No. 13-1105.09)
2. Glazing complies with ASTM E1300-04/ 09

D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. 12-1231.10 issued to Eastman Chemical Company (MA) for their "Saflex Clear and Color Glass Interlayers" dated 03/28/13, expiring on 05/21/16.
2. Notice of Acceptance No. 12-1231.08 issued to Eastman Chemical Company (MA) for their "Saflex CP - Saflex and Saflex HP Composite Glass Interlayers with PET Core" dated 03/28/13, expiring on 12/11/18.


Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 14-0428.21
Expiration Date: January 08, 2019
Approval Date: July 10, 2014

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS

1. Statement letter of conformance, and compliance with **FBC 5th Edition (2014)**, issued by W. W. Schaefer Engineering & Consulting, P. A., dated 04/15/14, signed and sealed by Warren W. Schaefer, P. E.
2. Statement letter of conformance, and compliance with **FBC 2010**, issued by W. W. Schaefer Engineering & Consulting, P. A., dated 09/03/13, signed and sealed by Warren W. Schaefer, P. E.
(Submitted under previous NOA No. 13-1105.09)
3. Statement letter of independence and no financial interest, issued by W. W. Schaefer Engineering & Consulting, P. A., dated 09/04/13, signed and sealed by Warren W. Schaefer, P. E.
(Submitted under previous NOA No. 13-1105.09)
4. Distributor Agreement between Tischler und Sohn (USA), Ltd., Connecticut, USA, and Tischler/ Cornelius Korn, G.m.b.H., Wedel (Schleswig-Holstein), Germany, dated 04/13/09, signed by Tim Carpenter and Wilhelm Korn, respectively.
(Submitted under previous NOA No. 11-1101.11)
5. Laboratory addendum letter for Test Report No. **ATI-77324.01-109-18**, issued by Architectural Testing, Inc., dated 11/20/08, signed and sealed by Michael D. Stremmel, P. E.
(Submitted under NOA No. 08-0804.16)
6. Laboratory compliance letter for Test Report No. **ATI-77324.01-109-18**, issued by Architectural Testing, Inc., dated 07/01/08, signed and sealed by Michael D. Stremmel, P. E.
(Submitted under NOA No. 08-0804.16)

G. OTHERS

1. Notice of Acceptance No. **13-1105.09**, issued to Tischler und Sohn (USA), Ltd. for their Series "Mahogany Impact Wood Inswing Casement Window - L.M.I.", approved on 12/26/13 and expiring on 01/08/19.



Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 14-0428.21
Expiration Date: January 08, 2019
Approval Date: July 10, 2014

GENERAL NOTES:

1. THESE WINDOW SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN. PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR LARGE MISSILE IMPACT WINDOWS.
5. THESE WINDOW SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. IMPACT SHUTTERS ARE NOT REQUIRED WITH THESE WINDOWS.
7. ALL ANCHORS SECURING WINDOW FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF $K_d = 0.85$ MAY BE APPLIED PER THE ASCE 7 STANDARD.
9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR $C_d = 1.6$ WAS USED FOR WOOD SCREW ANALYSIS ONLY.
10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20.
11. ALL WOOD MEMBERS OF WINDOWS THAT MAY POSSIBLY COME INTO CONTACT WITH MASONRY OR CONCRETE SUBSTRATES, ARE SUBJECT TO MOISTURE &/OR ARE SUBJECT TO THE OUTSIDE ENVIRONMENT SHALL BE OF AN APPROVED DURABLE SPECIES OR BE TREATED IN AN APPROVED METHOD WITH AN APPROVED PRESERVATIVE PER FBC SECTION 2326.

CORNER CONSTRUCTION:

RECTANGULAR FRAME CORNERS: MORTISE & TENON CONSTRUCTION JOINED & GLUED WITH PONAL SUPER 3 WOOD GLUE OR EQUIVALENT.

ARCHED FRAME CORNERS: ARCHED FRAME BUTTED TO STRAIGHT FRAME, JOINED WITH ONE(1) NO.14 X 3" WOOD SCREW, & GLUED WITH PONAL SUPER 3 WOOD GLUE OR EQUIVALENT.

HALF ROUND FRAME CORNERS: FINGER JOINT CONSTRUCTION JOINED & GLUED WITH PONAL SUPER 3 WOOD GLUE OR EQUIVALENT.

RECTANGULAR SASH CORNERS: MORTISE & TENON CONSTRUCTION JOINED & GLUED WITH PONAL SUPER 3 WOOD GLUE OR EQUIVALENT.

ARCHED SASH CORNERS: ARCHED SASH BUTTED TO STRAIGHT SASH, JOINED WITH ONE(1) NO.14 X 3" WOOD SCREW, & GLUED WITH PONAL SUPER 3 WOOD GLUE OR EQUIVALENT.

HALF ROUND SASH CORNERS: FINGER JOINT CONSTRUCTION JOINED & GLUED WITH PONAL SUPER 3 WOOD GLUE OR EQUIVALENT.

FRAME ANCHOR REQUIREMENTS TABLE

OPENING TYPE (SUBSTRATE)	FRAME/CLIP/BACKET TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
FRAME SCREWS			
MIN. 2X4 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 14 SMS/WOOD SCREW OR 1/4" BTI SCREW	1 1/4"	3/4"
MIN. 18 GA. 33 KSI METAL STUD	(2) 1/4-14 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	(2) 1/4-14 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	(2) 1/4-14 SELF TAP/DRILLING SCREW	FULL	1/2"
C-90 CMU/2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
INSTALLATION CLIP SCREWS			
MIN. 2X6 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 12 X 1 1/2" SMS	1 3/8"	3/4"
MIN. 18 GA. 33 KSI METAL STUD	(2) 12-14 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	(2) 12-14 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	(2) 12-14 SELF TAP/DRILLING SCREW	FULL	1/2"
C-90 CMU/2500 PSI CONCRETE	(1) 1/4" CONCRETE SCREW	1 1/4"	2"
BTI BRACKET & ANGLE CLIP SCREWS			
MIN. 2X6 WOOD FRAME OR BUCK (MIN. GR. 3 & G=0.55)	NO. 8 X 1 1/2" SMS	1 1/8"	3/4"
MIN. 18 GA. 33 KSI METAL STUD	(2) 8-18 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK A36 STEEL	(2) 8-18 SELF TAP/DRILLING SCREW	FULL	1/2"
MIN. 1/8" THK 6063-T5 ALUM.	(2) 8-18 SELF TAP/DRILLING SCREW	FULL	1/2"

(1) CONCRETE SCREWS SHALL BE ELCO ULTRA-CONS, ELCO CRETE-FLEX OR HILTI KWIK-CON II (HARDENED STEEL OR S.S.).

(2) ALL SELF TAP/DRILLING SCREWS SHALL BE MIN. GR. 5

LOCK STRIKE REQUIREMENTS (TOP OF PANEL)

SASH WIDTH	QUANTITY PER PANEL
RECTANGULAR PANEL	
OVER 24"	2
LESS THAN 24"	1
ARCH TOP PANEL	
OVER 28"	3
15" TO 28"	2
LESS THAN 15"	1
ROUND TOP PANEL	
OVER 32"	4
20" TO 32"	3
12" TO 20"	2
LESS THAN 12"	1

LOCK STRIKE REQUIREMENTS (LOCK SIDE OF PANEL)

SASH HEIGHT	QUANTITY PER PANEL
ALL PANEL SHAPES	
OVER 77"	3
40" TO 77"	2
LESS THAN 40"	1

LOCK STRIKE REQUIREMENTS (BOTTOM OF PANEL)

SASH WIDTH	QUANTITY PER PANEL
ALL PANEL SHAPES	
OVER 32"	3
24" TO 32"	2
LESS THAN 24"	1

LOCK STRIKE REQUIREMENTS (HINGE SIDE OF TILT-TURN WINDOWS)

SASH HEIGHT	QUANTITY PER PANEL
ALL PANEL SHAPES	
OVER 79"	4
45" TO 79"	3
27" TO 45"	2
LESS THAN 27"	1

NOTE: WHEN WINDOW IS TILT-TURN, ONLY 2 HINGES ARE USED COMBINED WITH LOCK POINTS. WHEN WINDOW IS SWING ONLY, ONLY HINGES EXIST.

SASH WIDTH DIMENSIONS ARE APPROXIMATELY 2 1/2" LESS THAN THE FRAME WIDTH & SASH HEIGHT DIMENSIONS ARE APPROXIMATELY 3" LESS THAN THE FRAME HEIGHT

ALLOWABLE DESIGN PRESSURE (SINGLE & DOUBLE WINDOWS)

MAX. FRAME HEIGHT (IN.)	MAX. FRAME WIDTH (IN.)	ALLOWABLE PRESSURE	
		POSITIVE (PSF)	NEGATIVE (PSF)
SINGLE WINDOW			
100 3/4	51 1/8	70	70
76 11/16	35 15/16	70	(1) 85
DOUBLE WINDOW			
100 3/4	79 1/16	(2) 70	(2) 70
76 11/16	71 13/16	70	(1) 85

(1) HIGHER PRESSURE OF -85 PSF IS ONLY APPLICABLE WHEN GLASS OPTION 2 & STANDARD SIZE MEETING STILES ARE USED

(2) WITH FULL SIZE SINGLE WINDOWS USING GLASS OPTION 4, ALLOWABLE PRESSURE MUST BE REDUCED TO +/-66 PSF. PRESSURE MAY BE INCREASED TO +/-70 PSF IF THE D.L.O. WIDTH IS DECREASED TO MAX. 39.5" OR THE D.L.O. HEIGHT IS DECREASED TO MAX. 87".

THE "SASH HEIGHT" IS CONSIDERED TO BE FULL SASH HEIGHT FOR RECTANGULAR UNITS OR DISTANCE FROM THE BASE OF SASH TO SASH SPRINGLINE FOR SHAPED UNITS

THESE DRAWINGS ARE APPLICABLE ONLY TO THE PRODUCT SPECIFIED. THEY MAY NOT BE USED FOR THE ASSEMBLY AND/OR INSTALLATION OF ANY OTHER PRODUCT NOR MAY THEY BE USED FOR RATIONAL AND/OR LOCAL APPROVAL OF ANY PRODUCT NOT PRODUCED BY THE MANUFACTURER STATED ON THESE DRAWINGS.

HINGE REQUIREMENTS

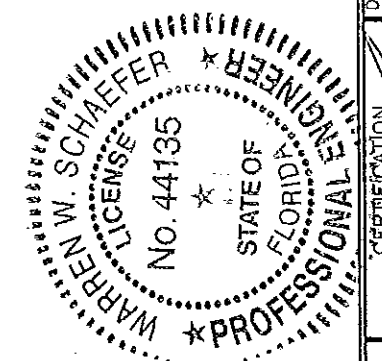
SASH HEIGHT	QUANTITY PER PANEL
POT HINGES	
OVER 74"	5
51" TO 74"	4
27" TO 51"	3
LESS THAN 27"	2
SCREWED-IN HINGES	
OVER 74"	4
46" TO 74"	3
LESS THAN 46"	2
CONCEALED HINGES	
OVER 78"	5
54" TO 78"	4
29" TO 54"	3
LESS THAN 29"	2

HINGE REQUIREMENTS (TILT-TURN WINDOWS)

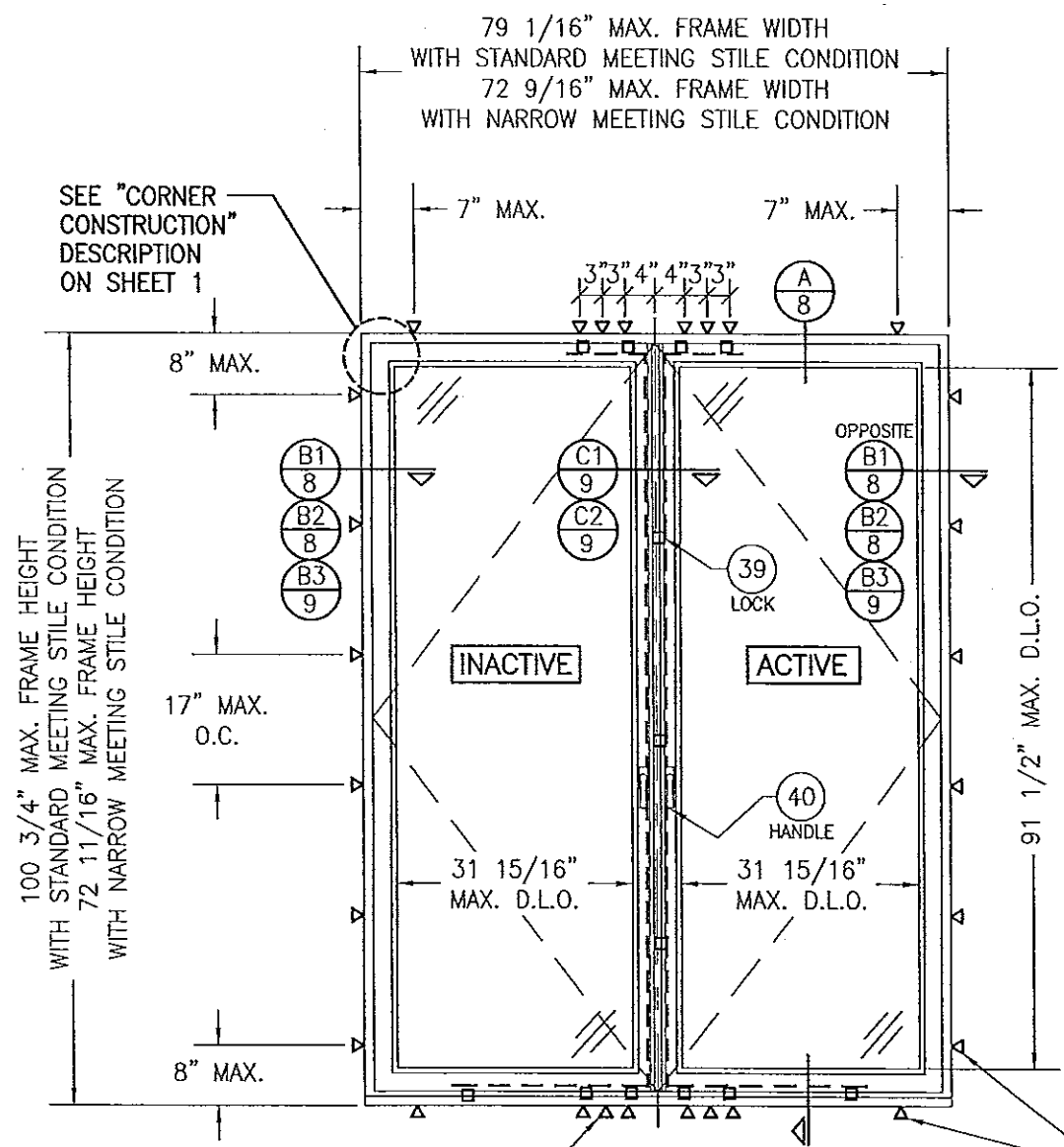
2 PER WINDOW (ALL SIZES OF ALL WINDOWS)

PRODUCT REVISED as complying with the Florida Building Code Acceptance No. 14-0428.21 Expiration Date 08/08/2019 By *Manuel Perez* Miami Dade Product Control

PRODUCT REVISED as complying with the Florida Building Code Acceptance No. 13-1105.09 Expiration Date Jan. 8, 2019 By *Manuel Perez* Miami Dade Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-24		DATE: 04/03/08	
DATE	BY	REVISION	DESCRIPTION
10/25/11	W.R.M.	A1	UPDATE TO CURRENT STANDARDS
09/04/13	W.R.M.	B1	UPDATE GLASS DESCRIPTION
DRAWING TITLE: IN-SWING IMPACT WOOD CASEMENT WINDOW			
MANUFACTURER: TISCHLER UND SOHN (USA) LTD.		CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)	
SIX SUBURBAN AVENUE		7480 150TH COURT NORTH, 33418	
STAMFORD, CONNECTICUT		PALM BEACH GARDENS, FL 33418	
203-674-0600		PHONE: 561-744-3424	
CERTIFICATION		SEP 04 2013	
WARREN W. SCHAEFER, P.E.		WARREN W. SCHAEFER, P.E.	
No. 44135		P.E. NO. 44135	
STATE OF FLORIDA		STATE OF FLORIDA	
PROFESSIONAL ENGINEER		*PROFESSIONAL ENGINEER*	
DRAWING NO. 1531		REV. B	
SHEET NO. 1		OF 14	

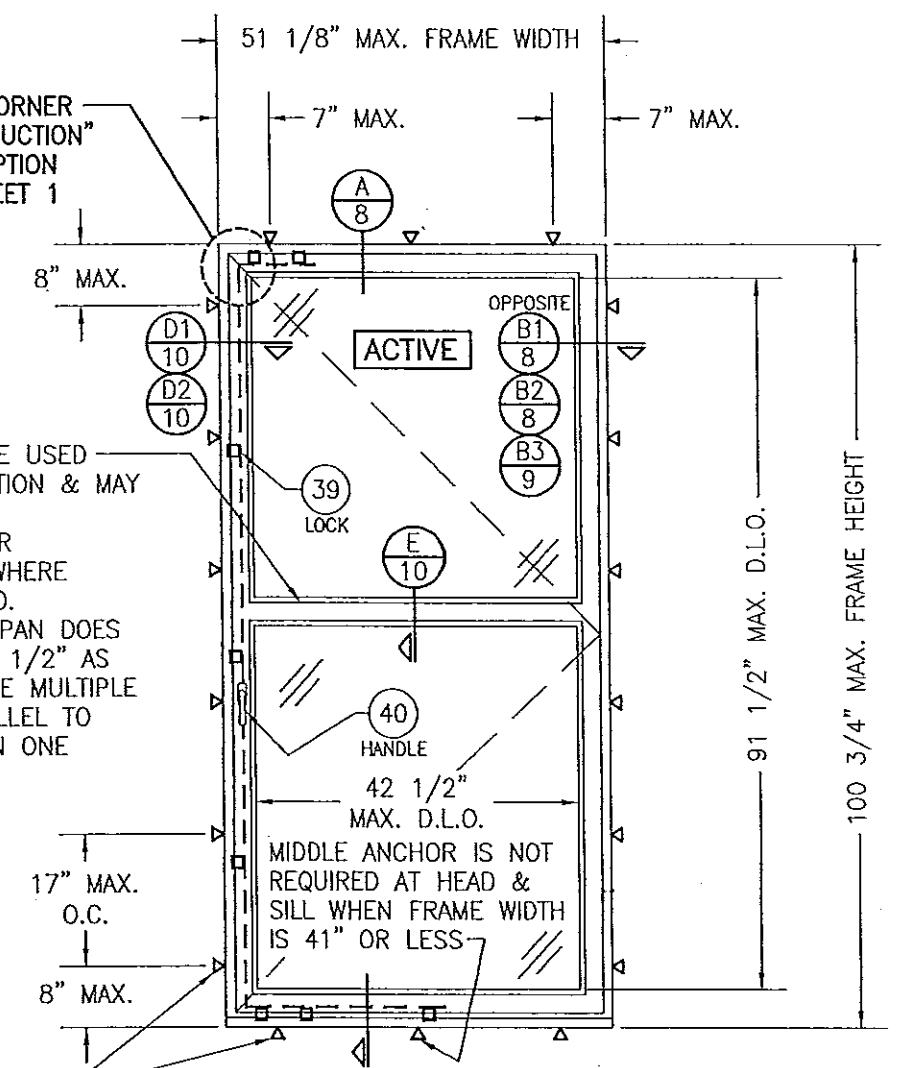


4 ANCHORS REQUIRED AT MEETING STILE ENDS WHEN WINDOW FRAME WIDTH IS 74" OR LESS OR WHEN FRAME HEIGHT IS 93" OR LESS; 6 ANCHORS REQUIRED OTHERWISE.

**INTERIOR ELEVATION:
DOUBLE RECTANGULAR CASEMENT WINDOWS
(TURN ONLY CONDITION)**
SCALE: 1/2" = 1'-0"

FRAME SHEAR SCREWS, INSTALLATION CLIPS, BTI BRACKETS OR ANGLE CLIPS WHERE SHOWN. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR REQUIREMENTS.

DUE TO HINGE CONDITION VARIATIONS, HINGES ARE NOT SHOWN IN ELEVATIONS, SEE SECTIONS & HINGE TABLES FOR HINGE REQUIREMENTS



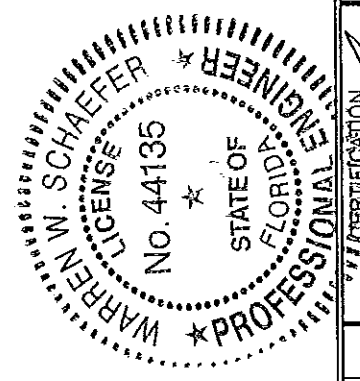
MID-RAIL MAY BE USED WITH ANY ELEVATION & MAY BE POSITIONED HORIZONTALLY OR VERTICALLY ANYWHERE WITHIN THE D.L.O. PROVIDING ITS SPAN DOES NOT EXCEED 42 1/2" AS SHOWN (MAY USE MULTIPLE MID-RAILS PARALLEL TO ONE ANOTHER IN ONE WINDOW PANEL)

**INTERIOR ELEVATION:
SINGLE RECTANGULAR CASEMENT WINDOW
(TURN ONLY CONDITION)**
SCALE: 1/2" = 1'-0"

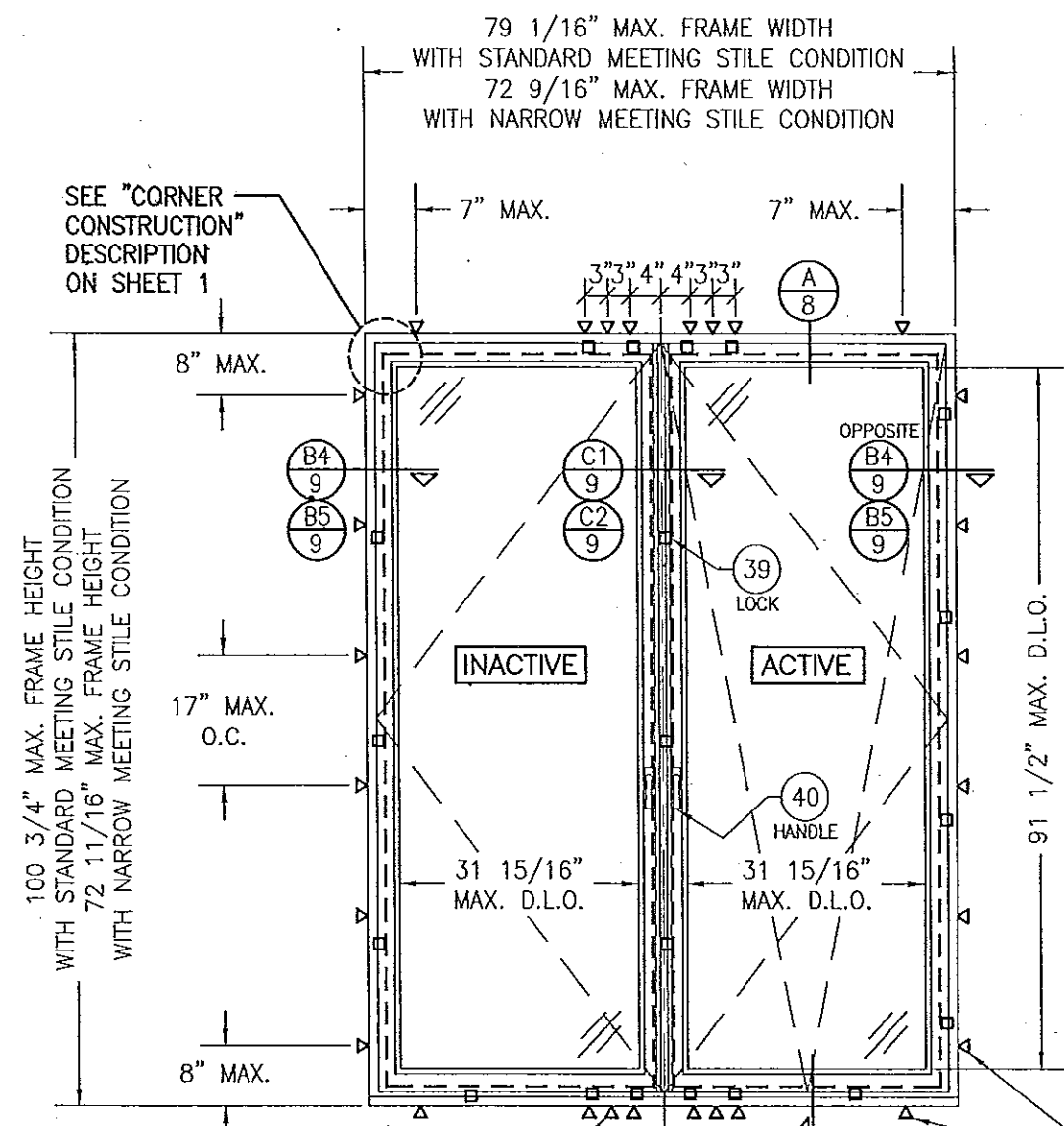
NOTE: WINDOW IS SHOWN WITH A MID-RAIL CONDITION. FULL LIGHT CONDITION ALSO APPLIES.

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No. 14-0428.21
Expiration Date 01/08/2019
By *[Signature]*
Miami Dade Product Control

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No. 13-1105.09
Expiration Date Jan. 8, 2019
By *[Signature]*
Miami Dade Product Control



DRAWING BY: W.R.M.		CHECKED BY: W.N.S.	
PLOT: 1=24		DATE: 04/03/08	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: IN-SWING IMPACT WOOD CASEMENT WINDOW			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER: TISCHLER UND SOHN (USA) LTD.	
7480 150TH COURT NORTH, PALM BEACH GARDENS, FL 33418		SIX SUBURBAN AVENUE, STAMFORD, CONNECTICUT 203-674-0600	
SEP 04 2013		P.E. NO. 44135	
DRAWING NO. 1531		REV. B	
SHEET NO. 2		OF 14	

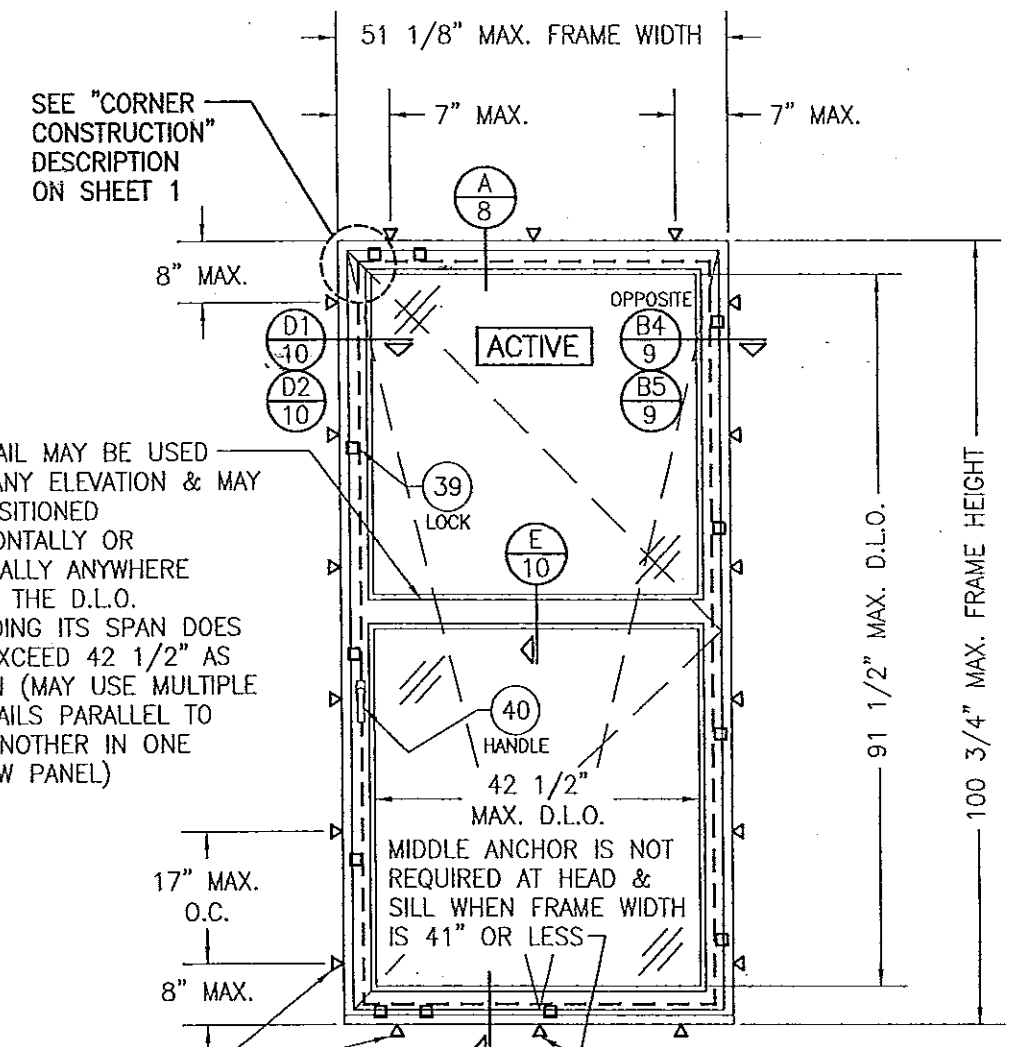


4 ANCHORS REQUIRED AT MEETING STILE ENDS WHEN WINDOW FRAME WIDTH IS 74" OR LESS OR WHEN FRAME HEIGHT IS 93" OR LESS; 6 ANCHORS REQUIRED OTHERWISE.

**INTERIOR ELEVATION:
DOUBLE RECTANGULAR CASEMENT WINDOWS
(TURN & TILT CONDITION)**
SCALE: 1/2" = 1'-0"

FRAME SHEAR SCREWS, INSTALLATION CLIPS, BTI BRACKETS OR ANGLE CLIPS WHERE SHOWN. SEE "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 FOR REQUIREMENTS.

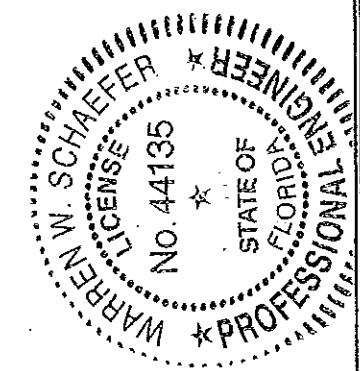
DUE TO HINGE CONDITION VARIATIONS, HINGES ARE NOT SHOWN IN ELEVATIONS, SEE SECTIONS & HINGE TABLES FOR HINGE REQUIREMENTS



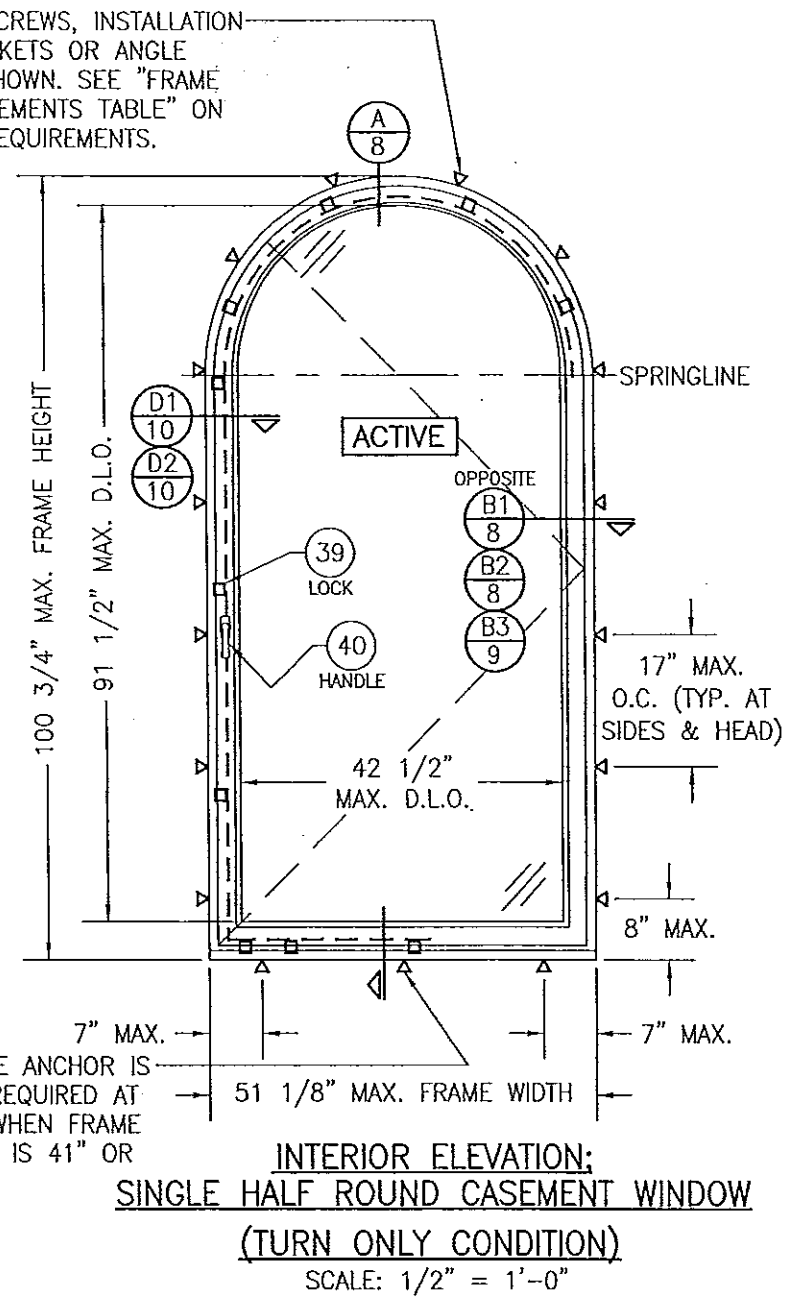
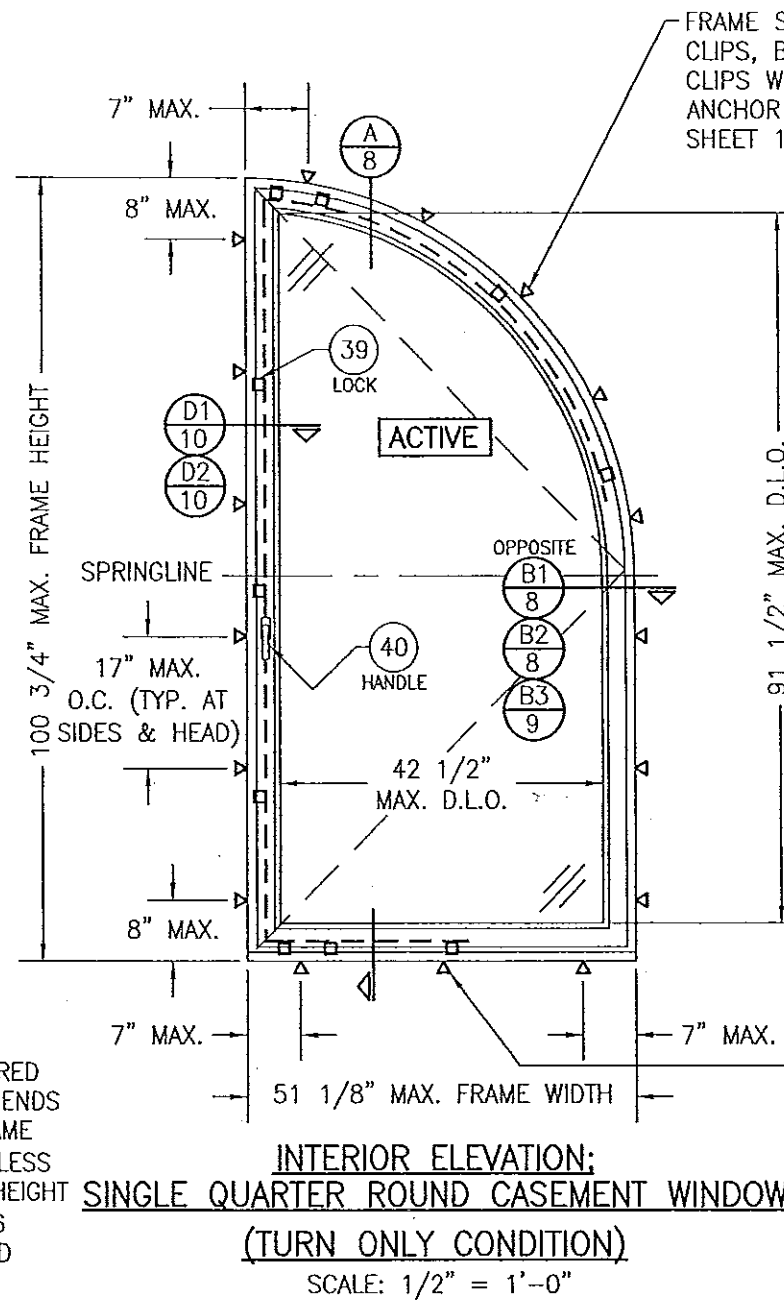
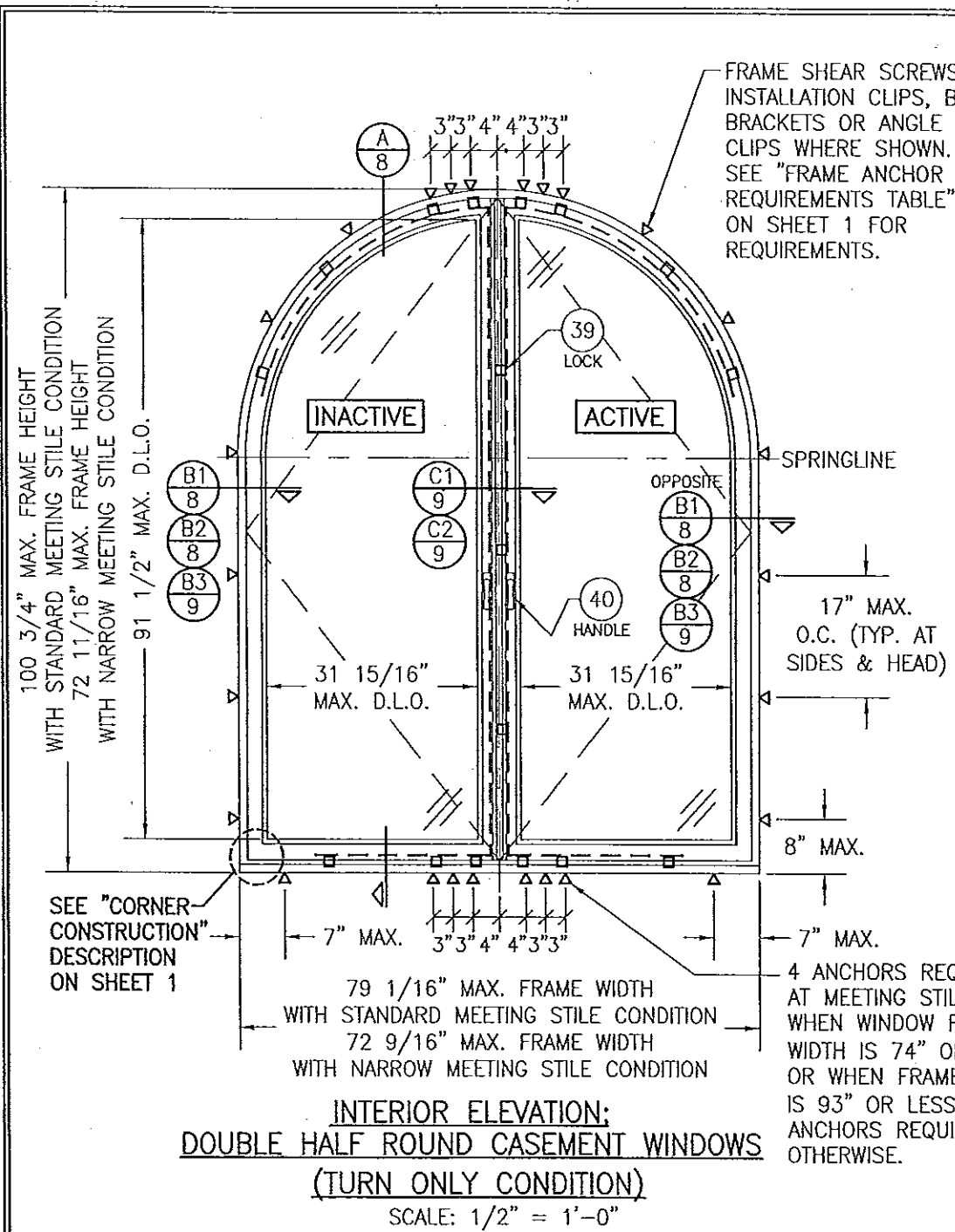
**INTERIOR ELEVATION:
SINGLE RECTANGULAR CASEMENT WINDOW
(TURN & TILT CONDITION)**
SCALE: 1/2" = 1'-0"
NOTE: WINDOW IS SHOWN WITH A MID-RAIL CONDITION. FULL LIGHT CONDITION ALSO APPLIES.

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No. 14-0428.21
Expiration Date 01/08/2019
By *Manuel Perez*
Miami Dade Product Control

PRODUCT REVISED as complying with the Florida Building Code
Acceptance No. 13-1105.09
Expiration Date 10/05/2019
By *Manuel Perez*
Miami Dade Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-24		DATE: 04/03/08	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: IN-SWING IMPACT WOOD CASEMENT WINDOW			
MANUFACTURER: TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 06307-6744-0600			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424			
CERTIFICATION: SEP 04 2013 WARREN W. SCHAEFER, P.E. P.E. NO. 44135			
DRAWING NO. 1531		REV. B	
SHEET NO. 3 OF 14			



APPROVED SHAPES

NOTES:

- OTHER SHAPES MAY APPLY PROVIDING THEY ARE SIMILAR TO THOSE SHOWN & HAVE CORNER CONSTRUCTION AS DESCRIBED IN THIS DRAWING.
- ALL SHAPED UNITS MUST FIT INSCRIBED INTO THE ALLOWABLE RECTANGULAR UNITS & BE GOVERNED BY THE ALLOWABLE PRESSURE OF THE RESPECTIVE RECTANGULAR UNIT.

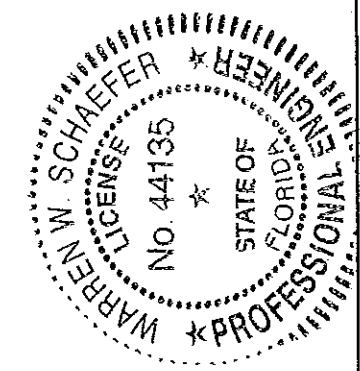
ALLOWABLE DESIGN PRESSURE
SEE PRESSURE TABLE ON SHEET 1

ANCHOR NOTE: ANCHOR SPACING AT THE HEAD OF ALL TYPES OF SHAPED WINDOWS MUST EQUAL THAT SPECIFIED AT THE SIDES (17" MAX. O.C.)

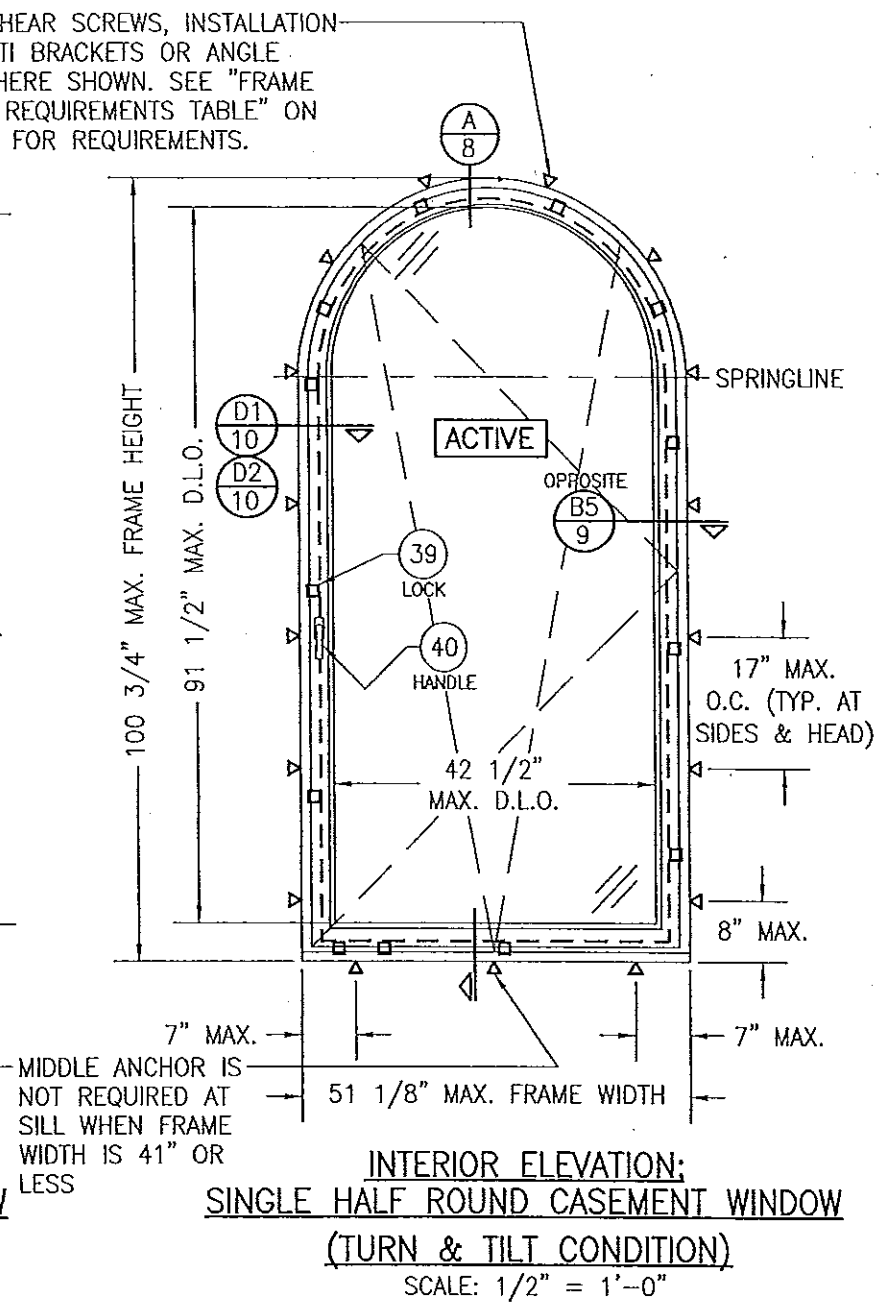
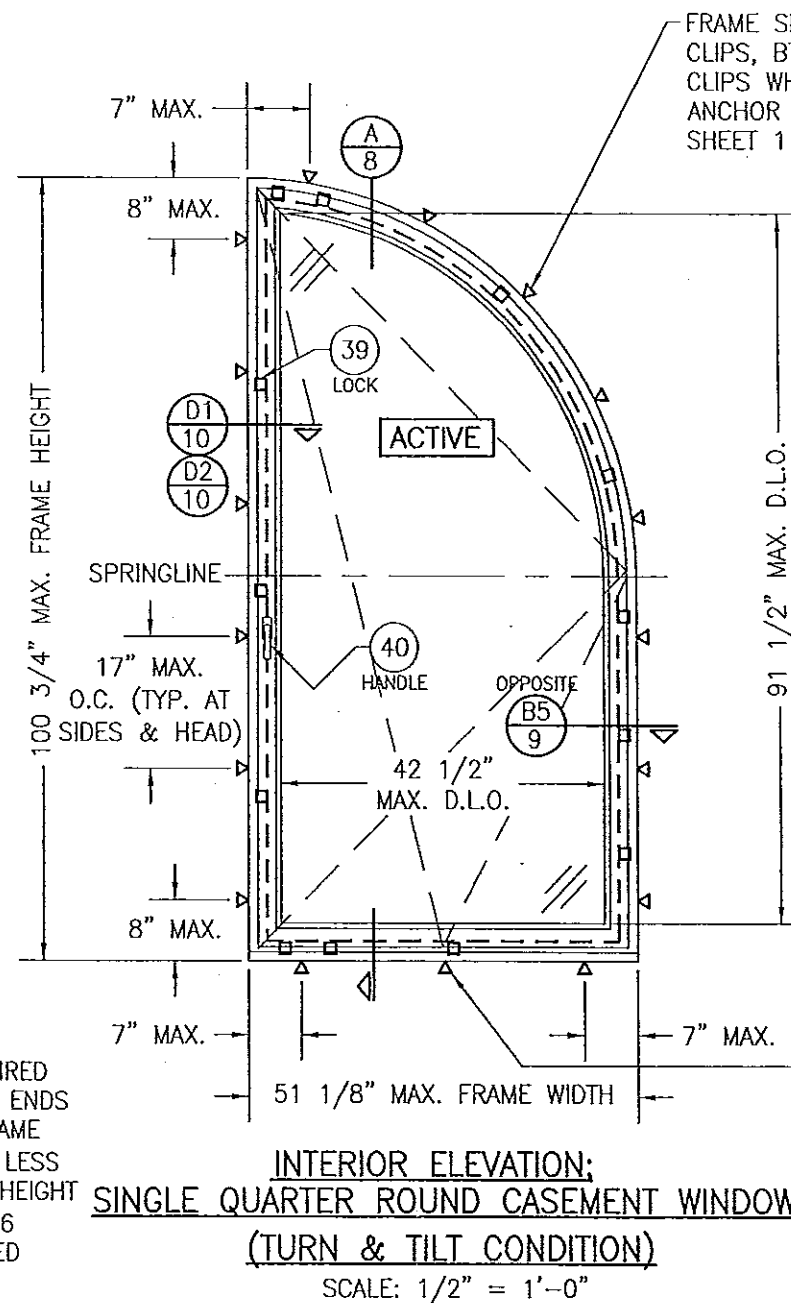
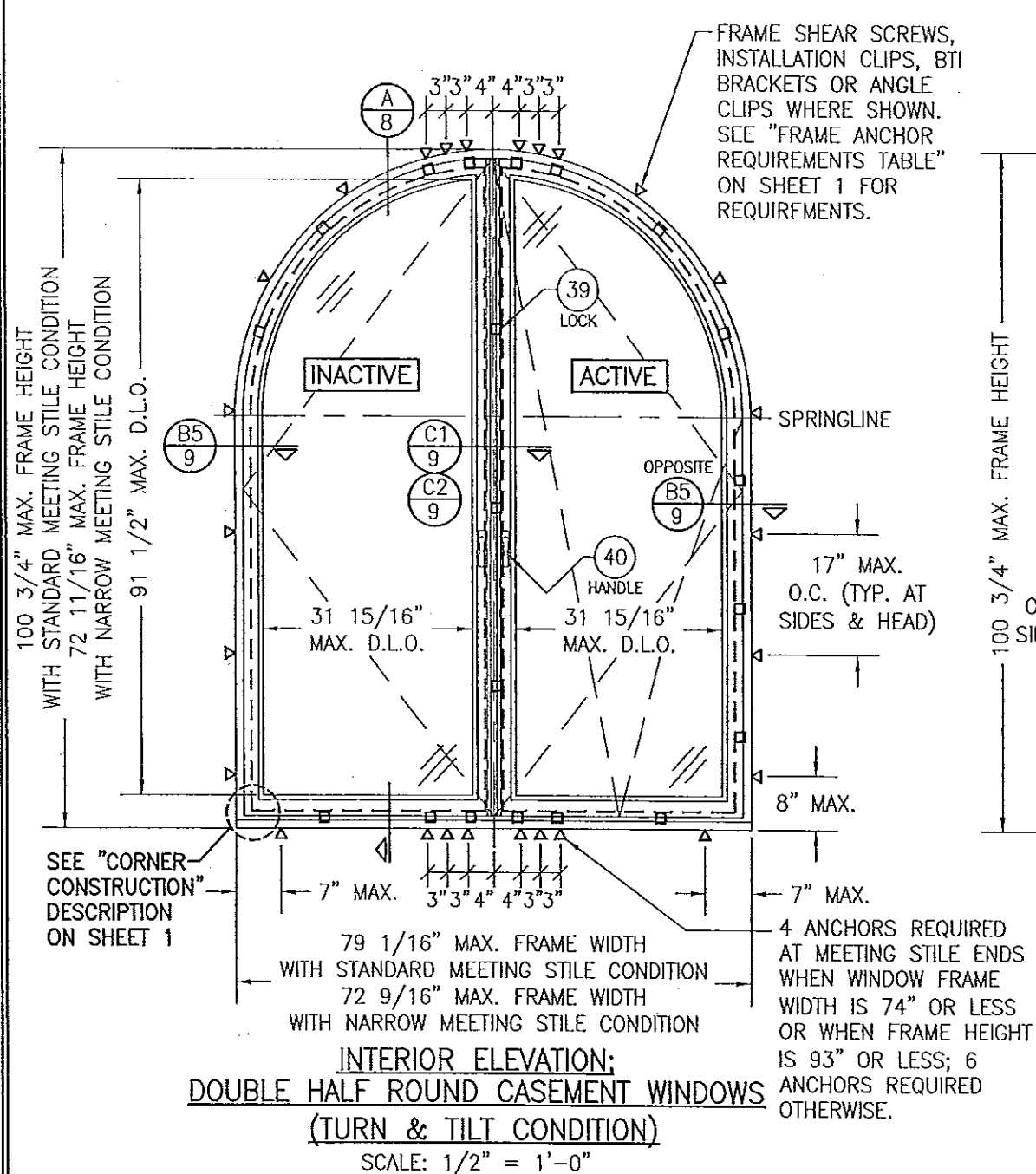
DUE TO HINGE CONDITION VARIATIONS, HINGES ARE NOT SHOWN IN ELEVATIONS. SEE SECTIONS & HINGE TABLES FOR HINGE REQUIREMENTS

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-0428.21
Expiration Date 01/08/2019
By *Manuel J. J...*
Miami Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 13-1105.09
Expiration Date Jan 5, 2019
By *Manuel J. J...*
Miami Dade Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 04/03/08	
NO.	REVISION DESCRIPTION	BY	DATE
DRAWING TITLE IN-SWING IMPACT WOOD CASEMENT WINDOW			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		MANUFACTURER TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600	
CERTIFICATION SEP 04 2013 WARREN W. SCHAEFER, P.E. P.E. NO. 44135		DRAWING NO. 1531 SHEET NO. 4 OF 14	



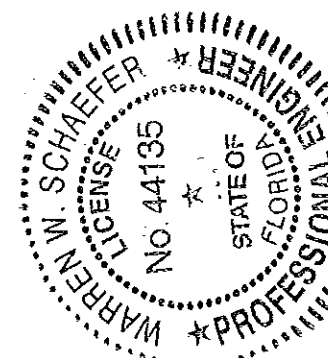
ANCHOR NOTE: ANCHOR SPACING AT THE HEAD OF ALL TYPES OF SHAPED WINDOWS MUST EQUAL THAT SPECIFIED AT THE SIDES (17" MAX. O.C.)

ALLOWABLE DESIGN PRESSURE
SEE PRESSURE TABLE ON SHEET 1

DUE TO HINGE CONDITION VARIATIONS,
HINGES ARE NOT SHOWN IN ELEVATIONS,
SEE SECTIONS & HINGE TABLES FOR
HINGE REQUIREMENTS

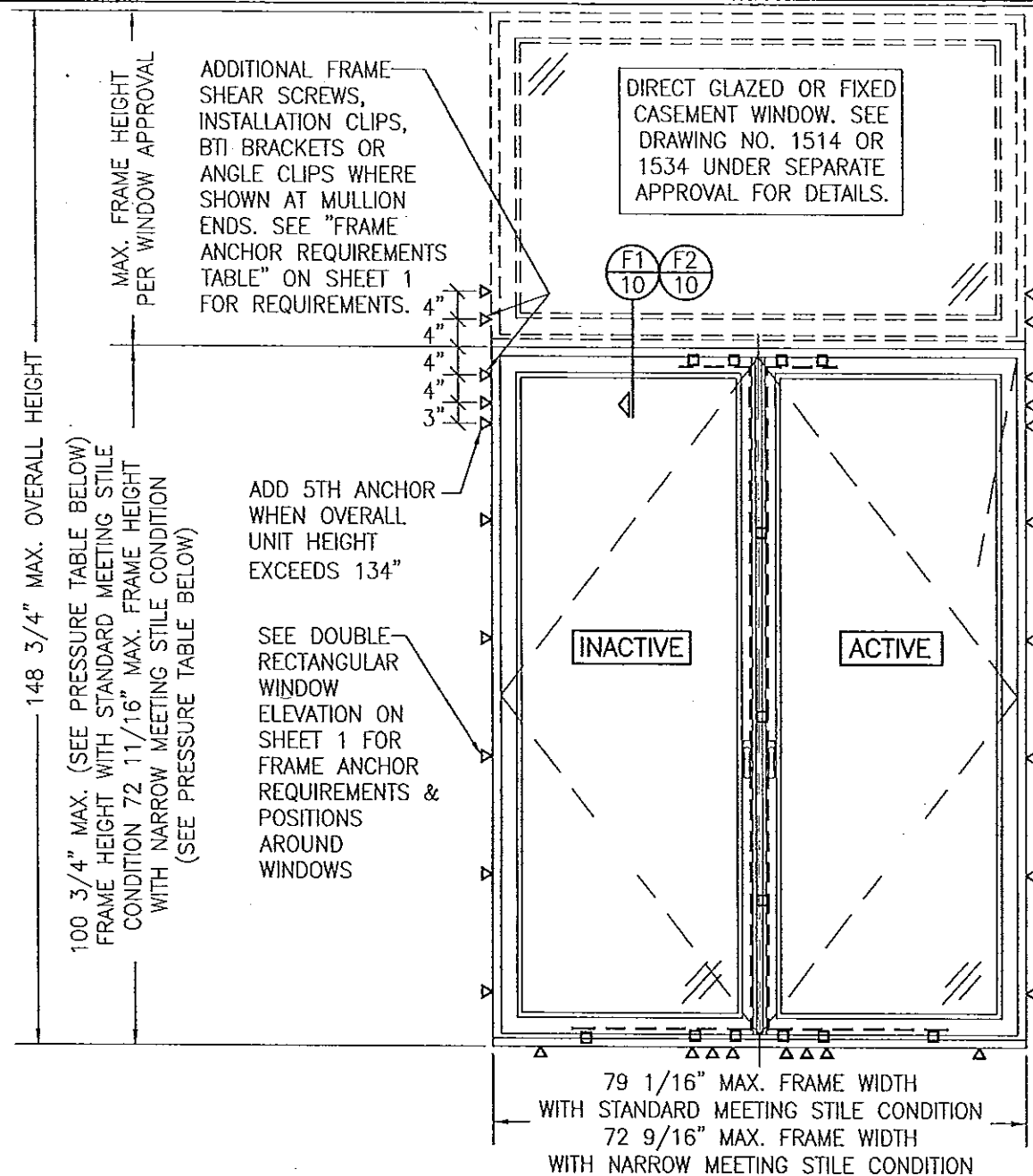
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-0428.21
Expiration Date 04/08/2019
By [Signature]
Miami Dade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 13-1105-09
Expiration Date Jan. 8, 2019
By Manuel Carr
Miami/Dade Product Control



APPROVED SHAPES

[illegible]

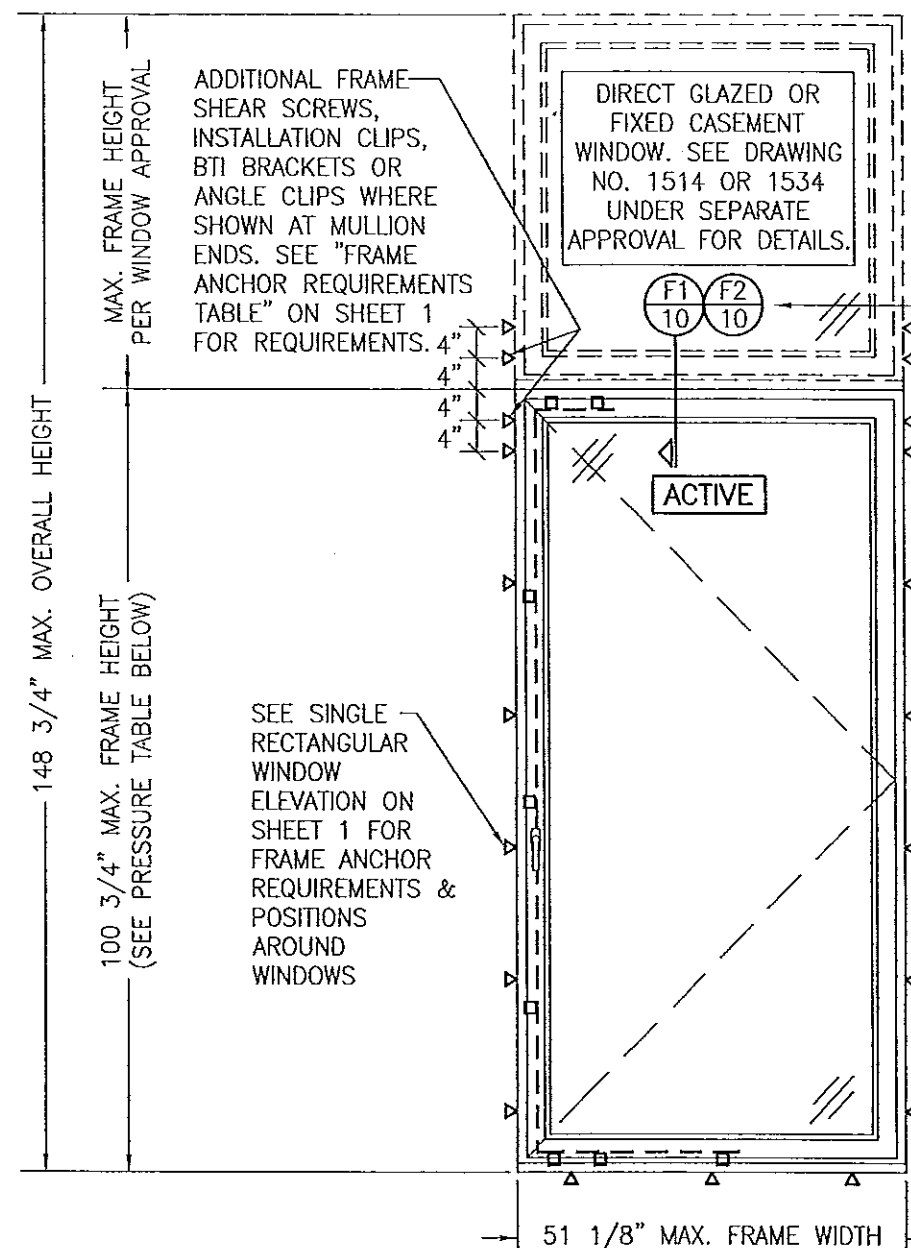


INTERIOR ELEVATION:
DOUBLE CASEMENT WINDOWS WITH TRANSOM
 (TURN CONDITION SHOWN; TILT CONDITION ALSO APPLIES)

SCALE: 1/2" = 1'-0"

(SEE DOUBLE RECTANGULAR WINDOW ELEVATIONS ON SHEET 2 & 3 FOR WINDOW DETAIL NOT SHOWN)

ALLOWABLE DESIGN PRESSURE (DOUBLE WINDOW TRANSOM UNIT)			
MAX. BOTTOM WINDOW FRAME HEIGHT (IN.)	MAX. FRAME WIDTH (IN.)	ALLOWABLE PRESSURE	
		POSITIVE (PSF)	NEGATIVE (PSF)
101 3/4	79 1/16	70	70
76 11/16	71 13/16	70	(1) 85
(1) HIGHER PRESSURE OF -85 PSF IS ONLY APPLICABLE WHEN GLASS OPTION 2 & STANDARD SIZE MEETING STILES ARE USED			



INTERIOR ELEVATION:
SINGLE CASEMENT WINDOW WITH TRANSOM
 (TURN CONDITION SHOWN; TILT CONDITION ALSO APPLIES)

SCALE: 1/2" = 1'-0"

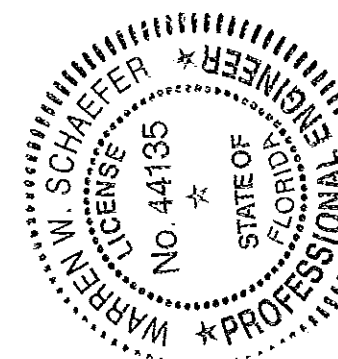
(SEE SINGLE RECTANGULAR WINDOW ELEVATIONS ON SHEET 2 & 3 FOR WINDOW DETAIL NOT SHOWN)

ALLOWABLE DESIGN PRESSURE (SINGLE WINDOW TRANSOM UNIT)			
MAX. BOTTOM WINDOW FRAME HEIGHT (IN.)	MAX. FRAME WIDTH (IN.)	ALLOWABLE PRESSURE	
		POSITIVE (PSF)	NEGATIVE (PSF)
101 3/4	51 1/8	70	70
76 11/16	36 11/16	70	(1) 85
(1) HIGHER PRESSURE OF -85 PSF IS ONLY APPLICABLE WHEN GLASS OPTION 2 & STANDARD SIZE MEETING STILES ARE USED			

NOTE: MULLION REINFORCEMENT IS OPTIONAL WITH THIS SINGLE WINDOW WITH TRANSOM ELEVATION & IS NOT REQUIRED

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 14-0428.21
 Expiration Date 01/08/2019
 By [Signature]
 Miami Dade Product Control

PRODUCT REVISED
 as complying with the Florida
 Building Code
 Acceptance No. 13-1105.09
 Expiration Date Jan. 8, 2019
 By [Signature]
 Miami Dade Product Control

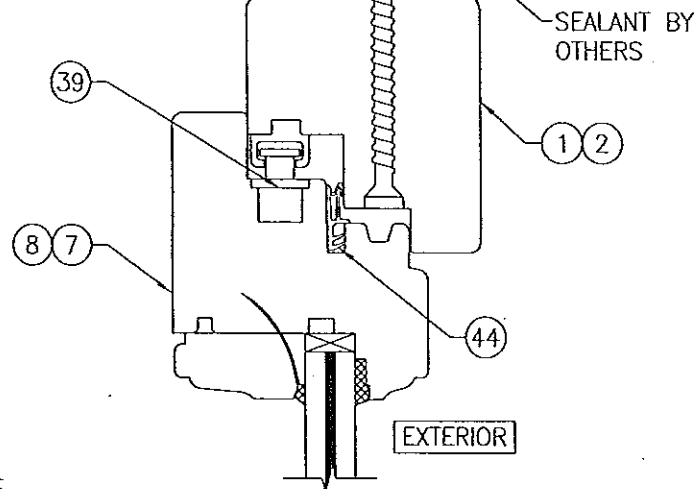


DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=24		DATE: 04/03/08	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: IN-SWING IMPACT WOOD CASEMENT WINDOW			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)		MANUFACTURER: TISCHLER UND SOHN (USA) LTD.	
7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600	
CERTIFICATION: [Signature]		SEP 04 2013	
DRAWING NO. 1531		REV. B	
SHEET NO. 6		OF 14	

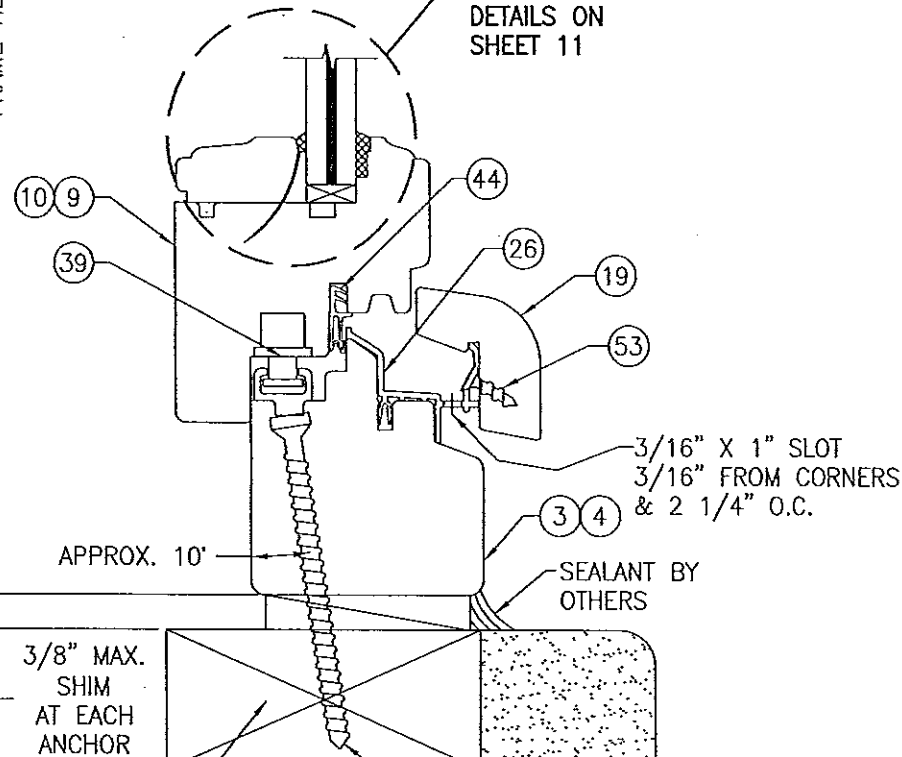
SUBSTRATE BY OTHERS PER FRAME ANCHOR REQUIREMENTS TABLE

FRAME ANCHOR PER ELEVATIONS

3/8" MAX. SHIM AT EACH ANCHOR



SEE GLAZING DETAILS ON SHEET 11



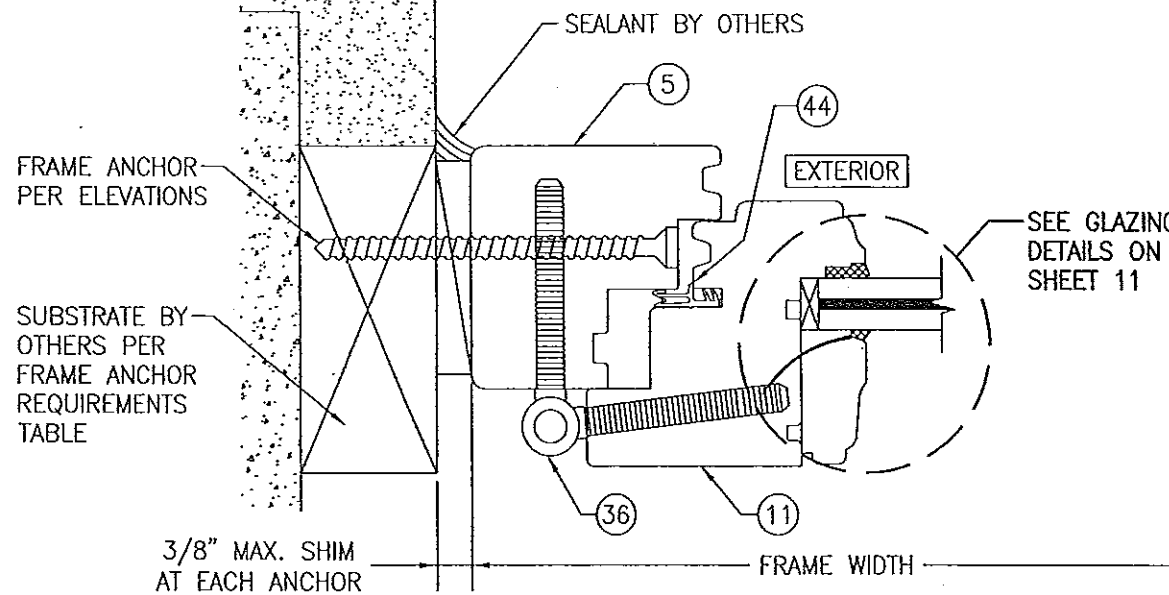
SUBSTRATE BY OTHERS PER FRAME ANCHOR REQUIREMENTS TABLE

FRAME ANCHOR PER ELEVATIONS

SECTION A-8

SCALE: 1/2 FULL

FRAME SHEAR SCREW INSTALLATION SHOWN. SEE OPTIONAL DETAILS FOR OTHER INSTALLATION CONDITIONS.

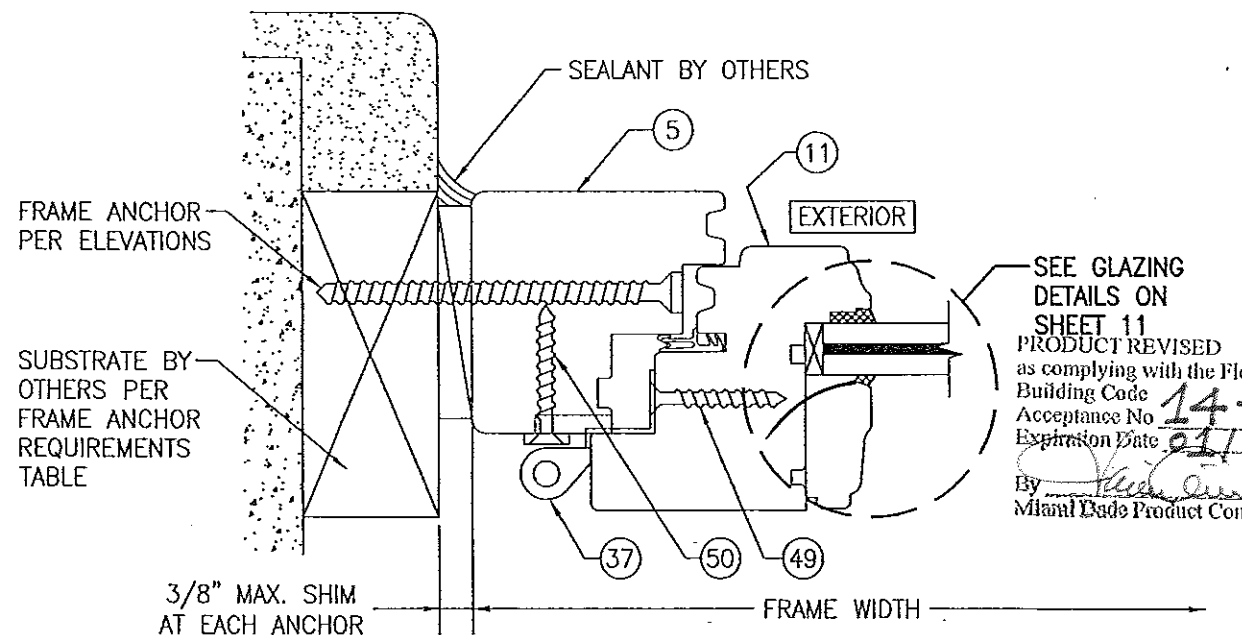


SECTION B1-8

SCALE: 1/2 FULL

(SCREWED IN HINGE CONDITION)

FRAME SHEAR SCREW INSTALLATION SHOWN. SEE OPTIONAL DETAILS FOR OTHER INSTALLATION CONDITIONS.



SECTION B2-8

SCALE: 1/2 FULL

(POT HINGE; TURN ONLY CONDITION)

FRAME SHEAR SCREW INSTALLATION SHOWN. SEE OPTIONAL DETAILS FOR OTHER INSTALLATION CONDITIONS. (FOR DETAIL NOT SHOWN, SEE SECTION B1/8)

SEE GLAZING DETAILS ON SHEET 11

PRODUCT REVISED as complying with the Florida Building Code

Acceptance No. 14-0428.21

Expiration Date 01/08/2019

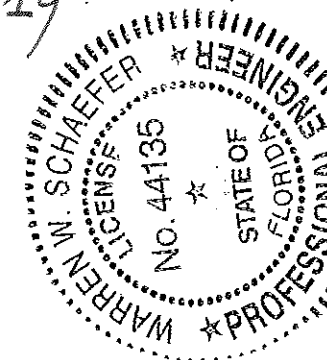
By Miami Dade Product Control

PRODUCT REVISED as complying with the Florida Building Code

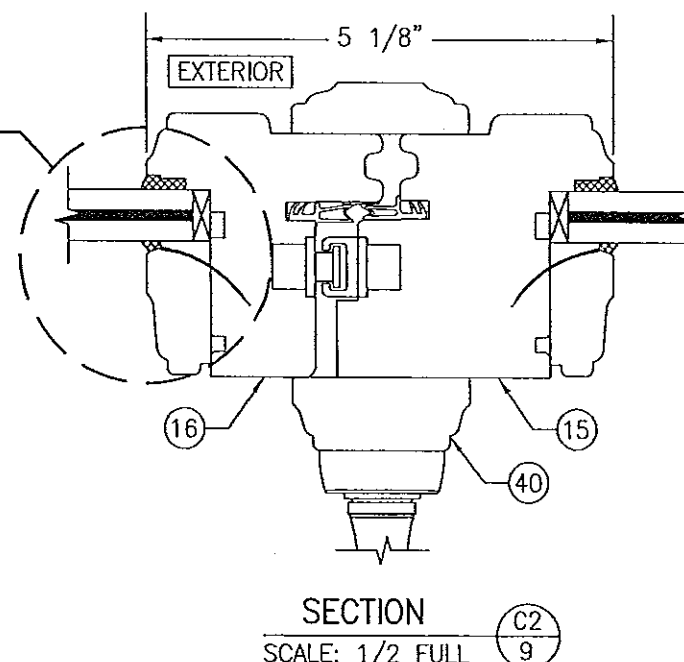
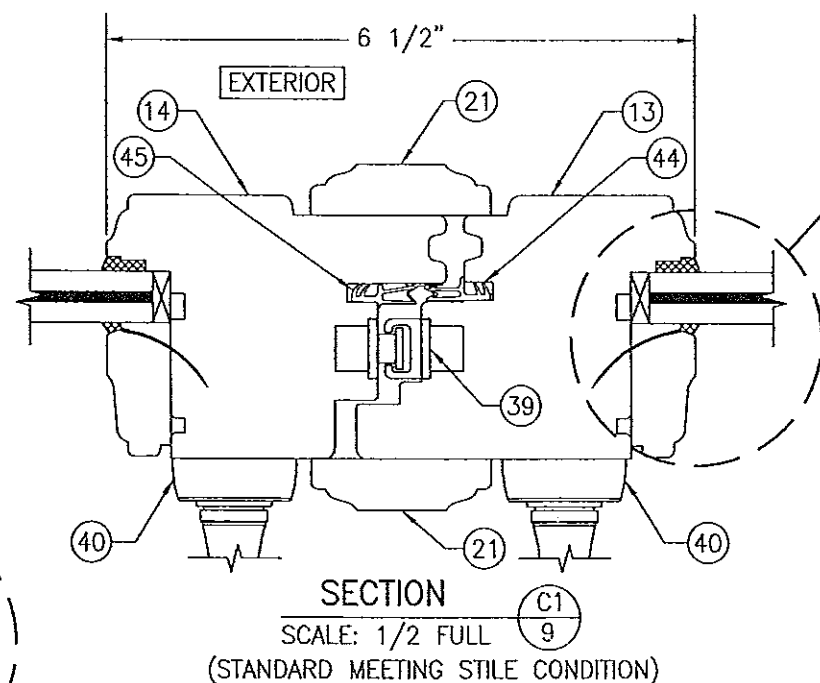
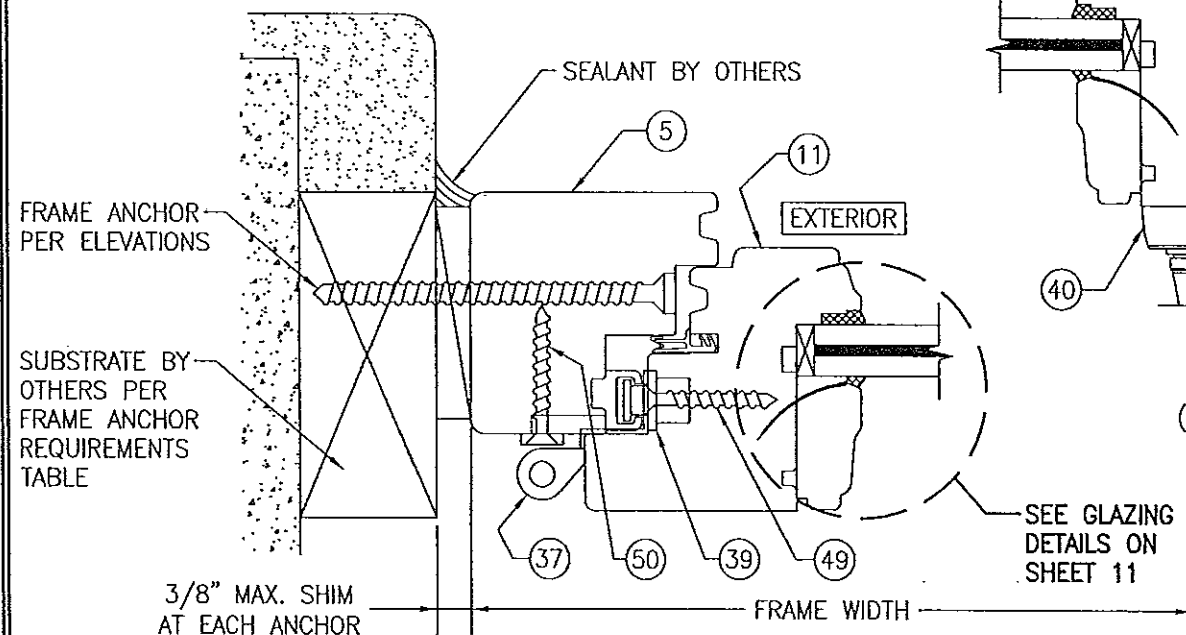
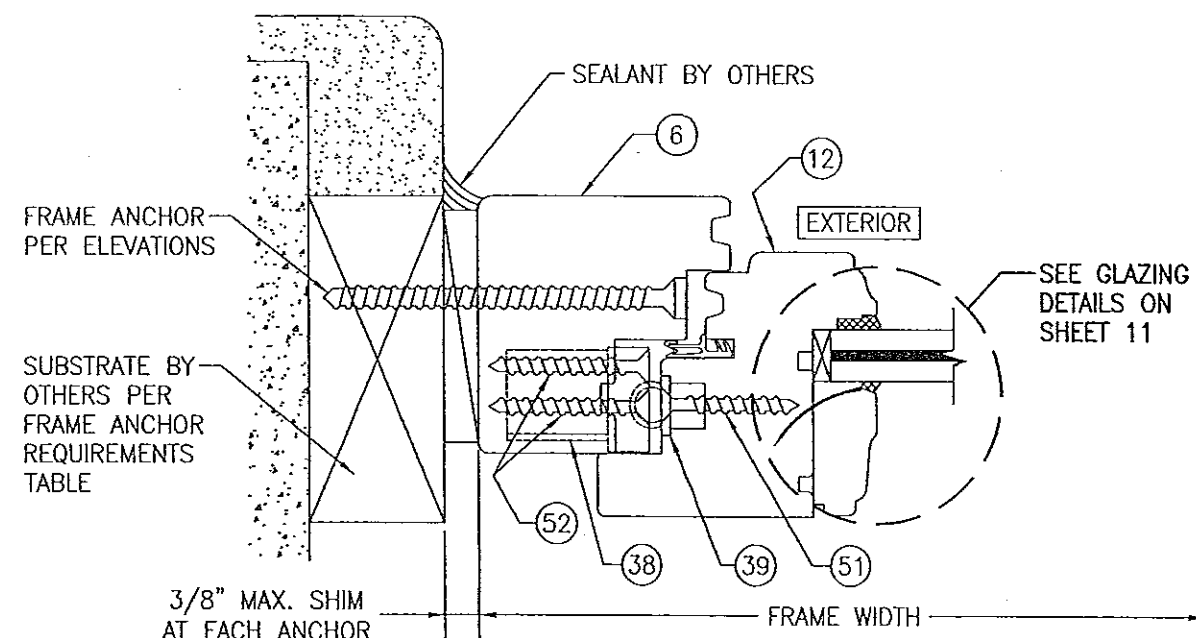
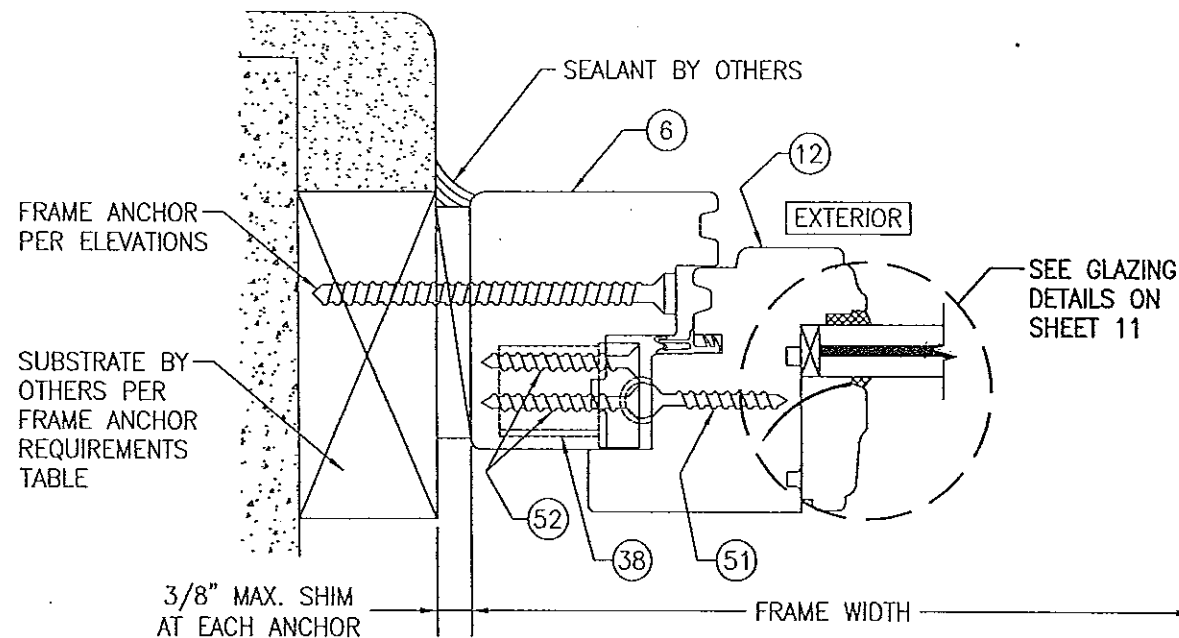
Acceptance No. 13-1105.09

Expiration Date 02/08/2019

By Miami Dade Product Control

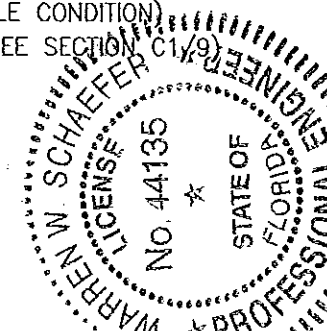


DRAWN BY: W.R.M.	CHECKED BY: W.W.S.
PLOT: 1-2	DATE: 04/03/08
DATE	BY
REVISION DESCRIPTION	NO.
DRAWING TITLE: IN-SWING IMPACT WOOD CASEMENT WINDOW	
MANUFACTURER: TISCHLER UND SOHN (USA) LTD.	
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)	
7480 150TH COURT NORTH, PALM BEACH GARDENS, FL 33418	
PHONE: 561-744-3424	
CERTIFICATION: SEP 04 2013	
WARREN W. SCHAEFER, P.E. NO. 44135	
DRAWING NO. 1531	REV. B
SHEET NO. 8 OF 14	

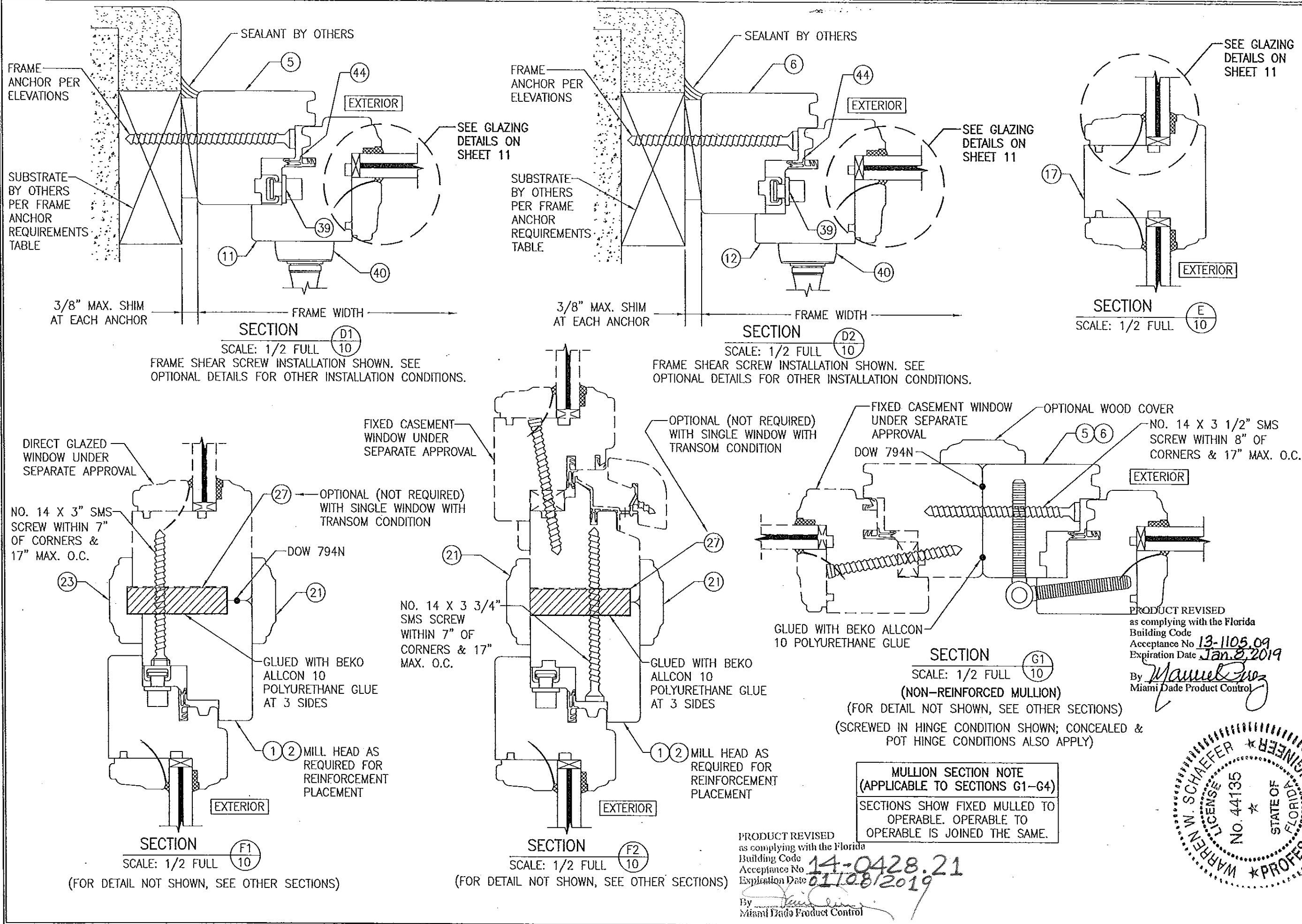


PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-0428.21
Expiration Date 01/08/2019
By Miami Dade Product Control

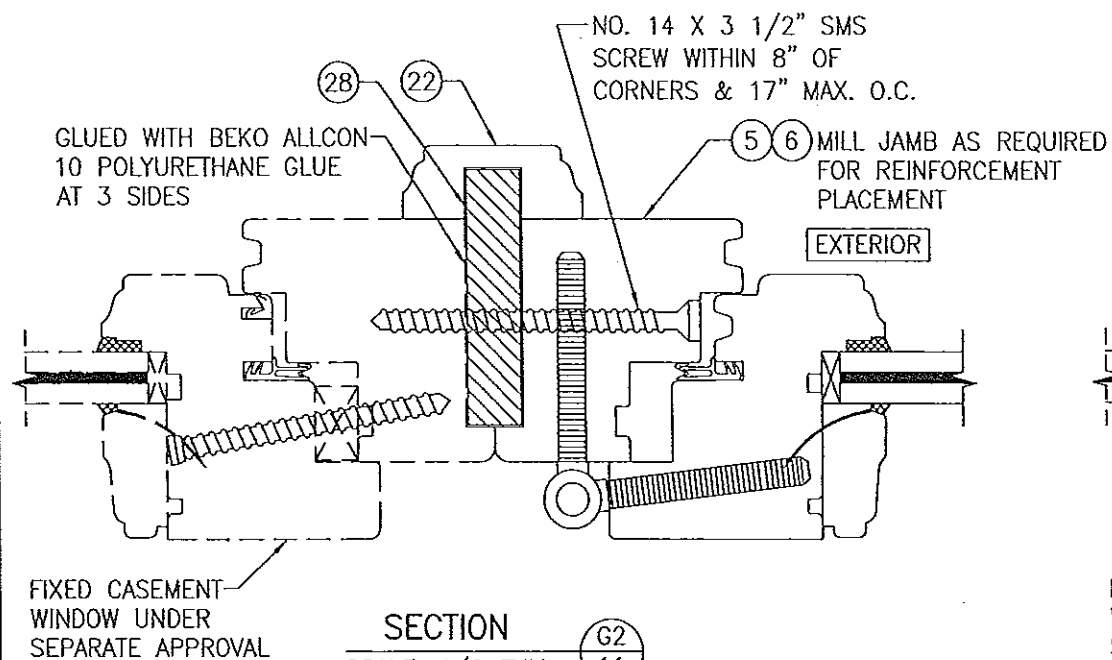
PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 13-1105.09
Expiration Date Jan. 8, 2019
By Miami Dade Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1=2		DATE: 04/03/08	
NO.	REVISION	DESCRIPTION	DATE
DRAWING TITLE: IN-SWING IMPACT WOOD CASEMENT WINDOW			
MANUFACTURER: TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600			
CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424			
DRAWING NO. 1531 REV. B SHEET NO. 9 OF 14			

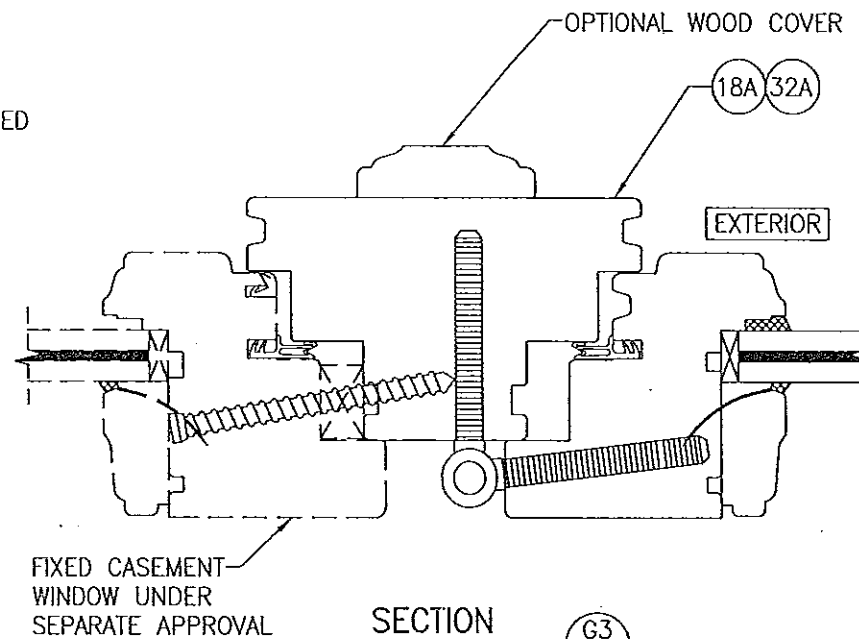


DRAWN BY: W.R.M.		CHECKED BY: W.W.S.		
PLOT: 1=2		DATE: 04/03/08		
NO.	REVISION	DESCRIPTION	BY	DATE
DRAWING TITLE IN-SWING IMPACT WOOD CASEMENT WINDOW				
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		MANUFACTURER TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600		
DRAWING NO. 1531				
SHEET NO. 10 OF 14				
REV. B				



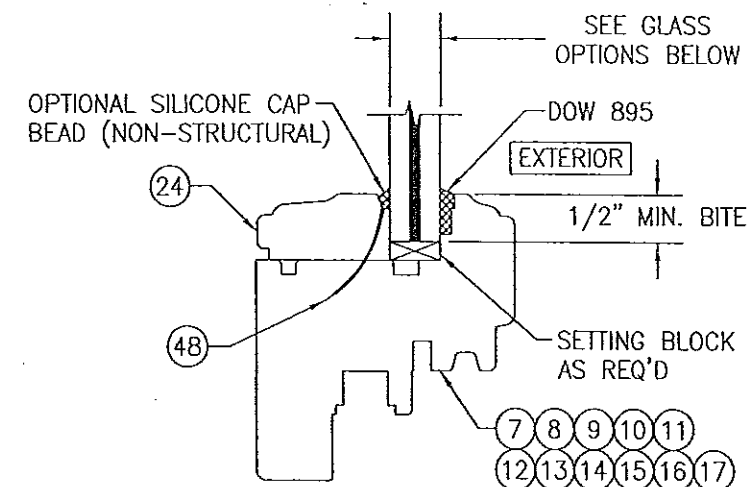
SECTION G2
SCALE: 1/2 FULL 11
(REINFORCED MULLION)

(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)
(SCREWED IN HINGE CONDITION SHOWN; CONCEALED &
POT HINGE CONDITIONS ALSO APPLY)



SECTION G3
SCALE: 1/2 FULL 11
(NON-REINFORCED MULLIO

(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)
(SCREWED IN HINGE CONDITION SHOWN; CONCEALED &
POT HINGE CONDITIONS ALSO APPLY)

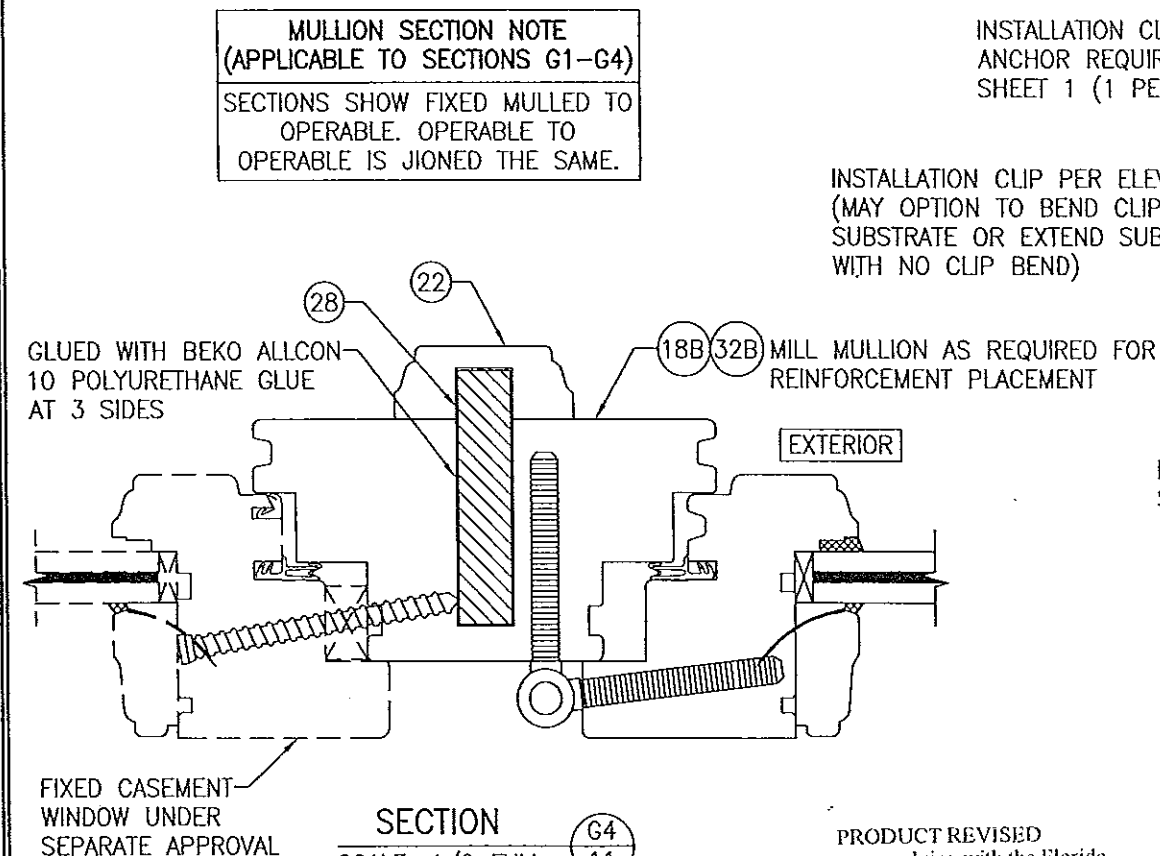


NON-I.G. GLAZING DETAIL
GLASS OPTIONS 1, 2 & 3

GLASS OPTION 1: 9/16" LAMINATED GLASS (1/4" AN./0.09"
EASTMAN CHEMICAL CO. SAFLEX/1/4" AN.)

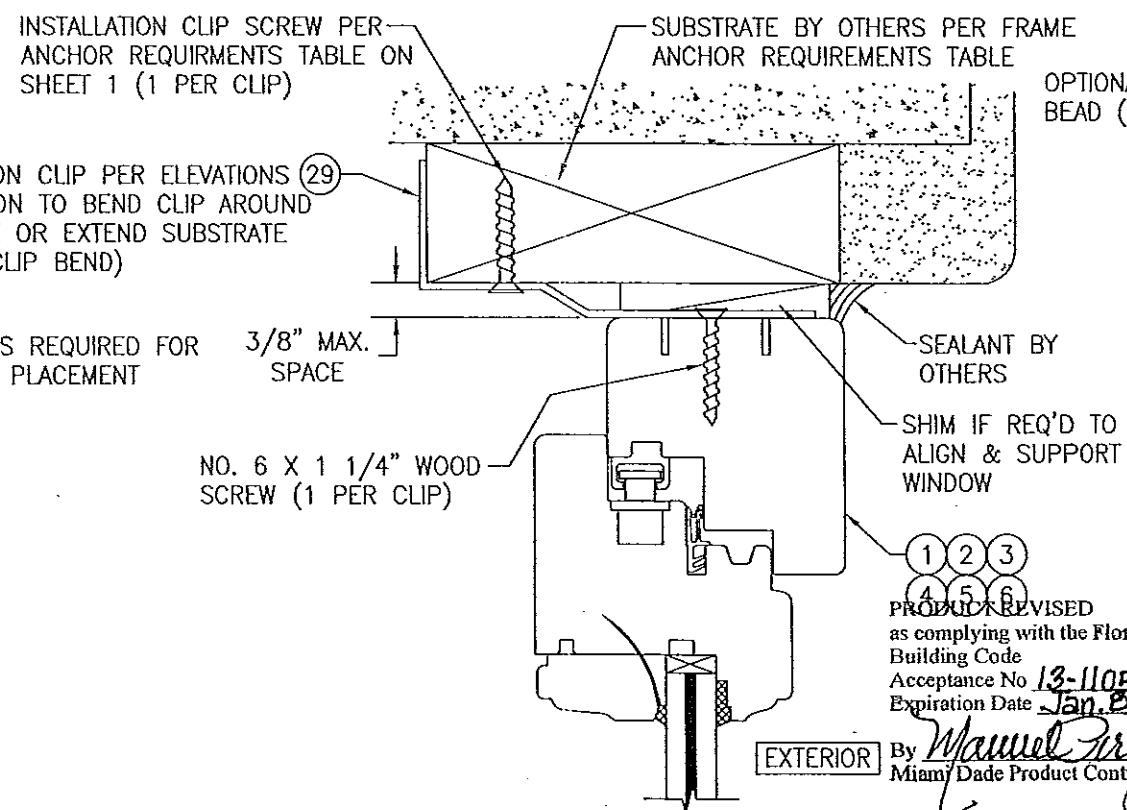
GLASS OPTION 2: 9/16" LAMINATED GLASS (1/4"
H.S./0.075" EASTMAN CHEMICAL CO. SAFLEX CP/1/4" H.S.)

GLASS OPTION 3: 9/16" LAMINATED GLASS (1/4"
AN./0.075" EASTMAN CHEMICAL CO. SAFLEX CP/1/4" AN.)



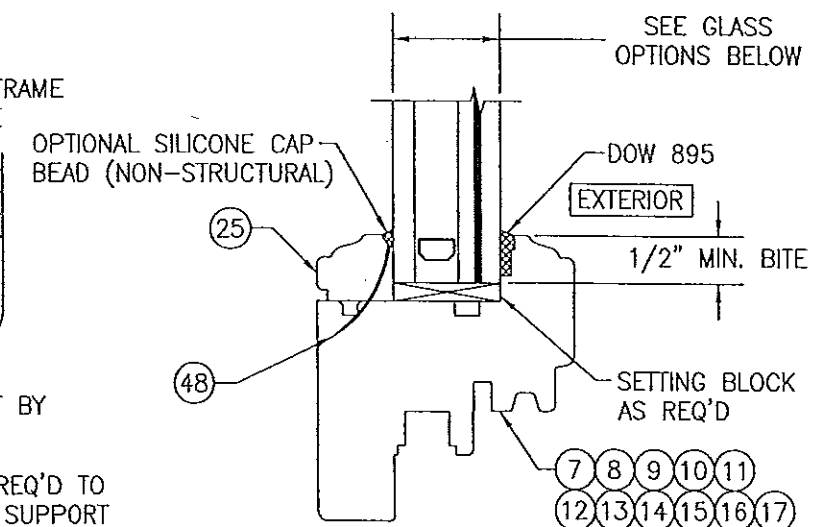
SECTION G4
SCALE: 1/2 FULL 11
(REINFORCED MULLION)

(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)
(SCREWED IN HINGE CONDITION SHOWN; CONCEALED
POT HINGE CONDITIONS ALSO APPLY)



OPTIONAL INSTALLATION CLIP DETAIL

(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)



I.G. GLAZING DETAIL
GLASS OPTIONS 4, 5 & 6

GLASS OPTION 4: 1 3/16" LAMINATED I.G.
(3/16" AN./0.09" EASTMAN CHEMICAL CO.
SAFLEX/3/16" AN./1/2" AIR SPACE/1/4 AN.)

GLASS OPTION 5: 1 3/16" LAMINATED I.G.
(3/16" AN./0.09" EASTMAN CHEMICAL CO.
SAFLEX/3/16" AN./1/2" AIR SPACE/1/4 TEME

GLASS OPTION 6: 1 3/16" LAMINATED I.G. (3/
H.S./0.075" EASTMAN CHEMICAL CO. SAFLEX
CP/3/16" H.S./1/2" AIR SPACE/1/4 TEMP.)

NOTE: THE SINGLE PANE OF THE IG GLASS SHALL BE TEMPERED WHEN REQUIRED TO CONFORM WITH SECTION 2406 OF THE FLORIDA BUILDING CODE FOR USE OF GLASS IN HAZARDOUS LOCATIONS.

[illegible]

WOOD CASEMENT WINDOW

MANUFACTURER

TISCHLER UND SOHN (USA) LTD.
SIX SUBURBAN AVENUE
STAMFORD, CONNECTICUT
203-674-0600

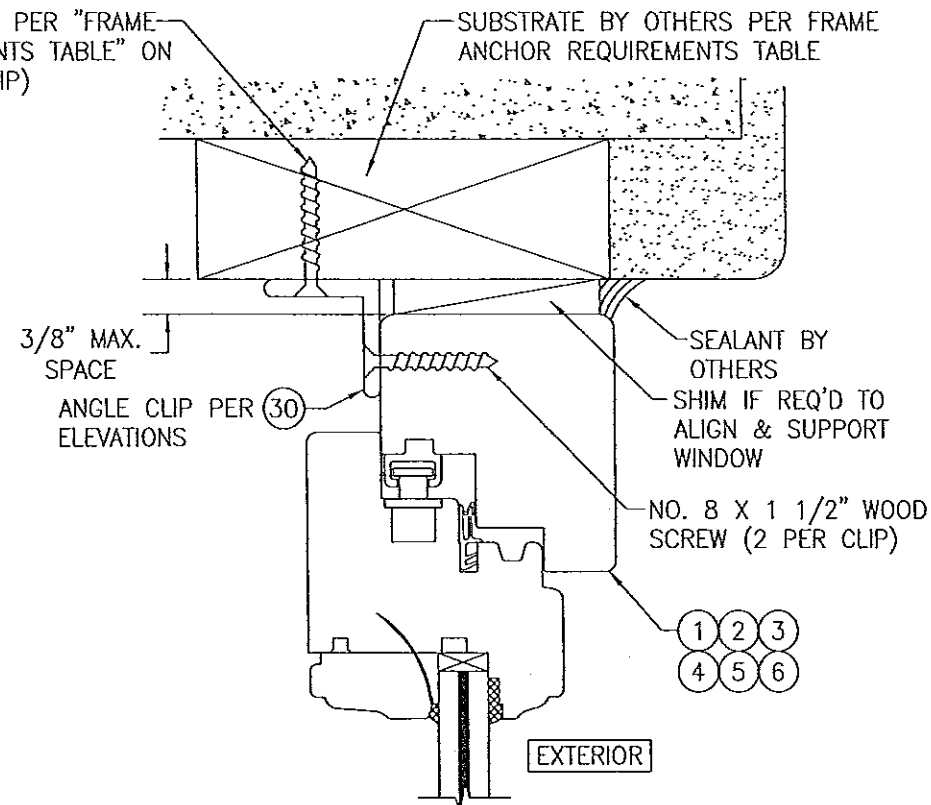
DRAWING TITLE IN-SWING IMPACT WALL

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-7744-3424

DRAWING NO. 1531		REV. B
SHEET NO. 11 OF 14		

SEP 04 2013

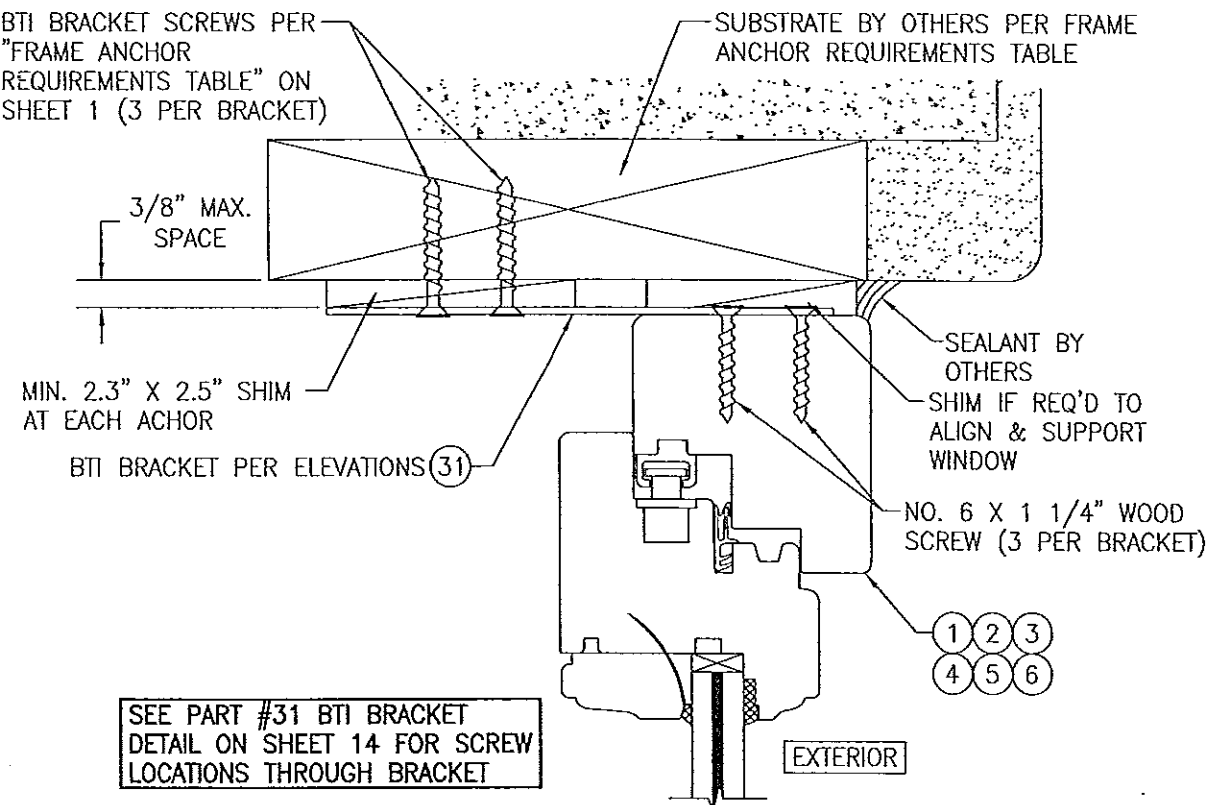
ANGLE CLIP SCREWS PER "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 (2 PER CLIP)



OPTIONAL INSTALLATION ANGLE CLIP DETAIL

(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

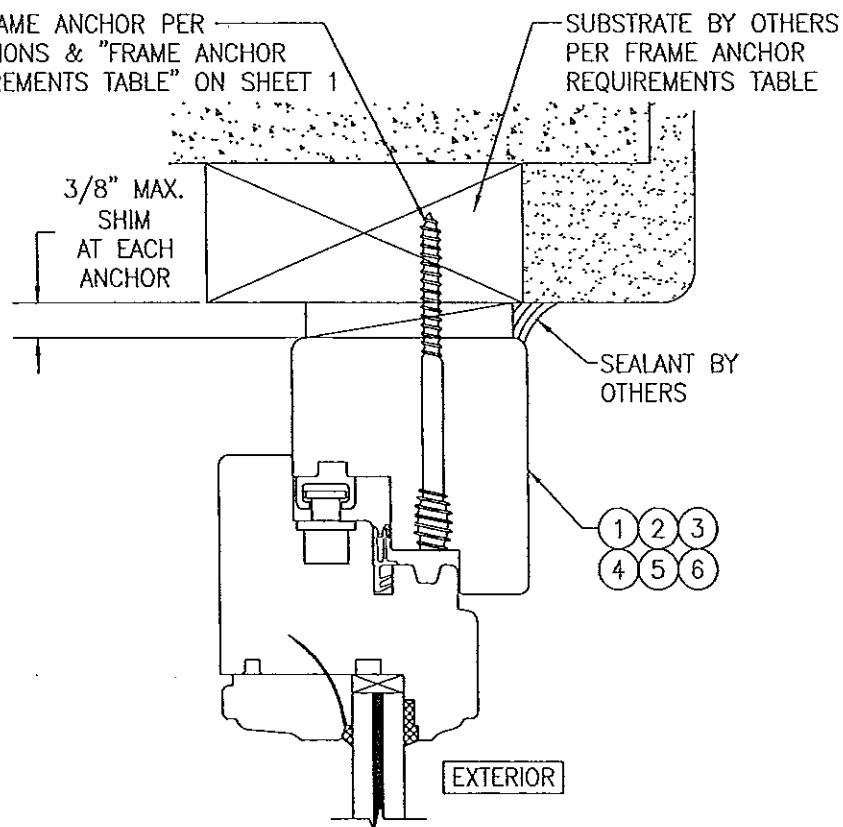
BTI BRACKET SCREWS PER "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1 (3 PER BRACKET)



OPTIONAL INSTALLATION BTI BRACKET DETAIL

(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

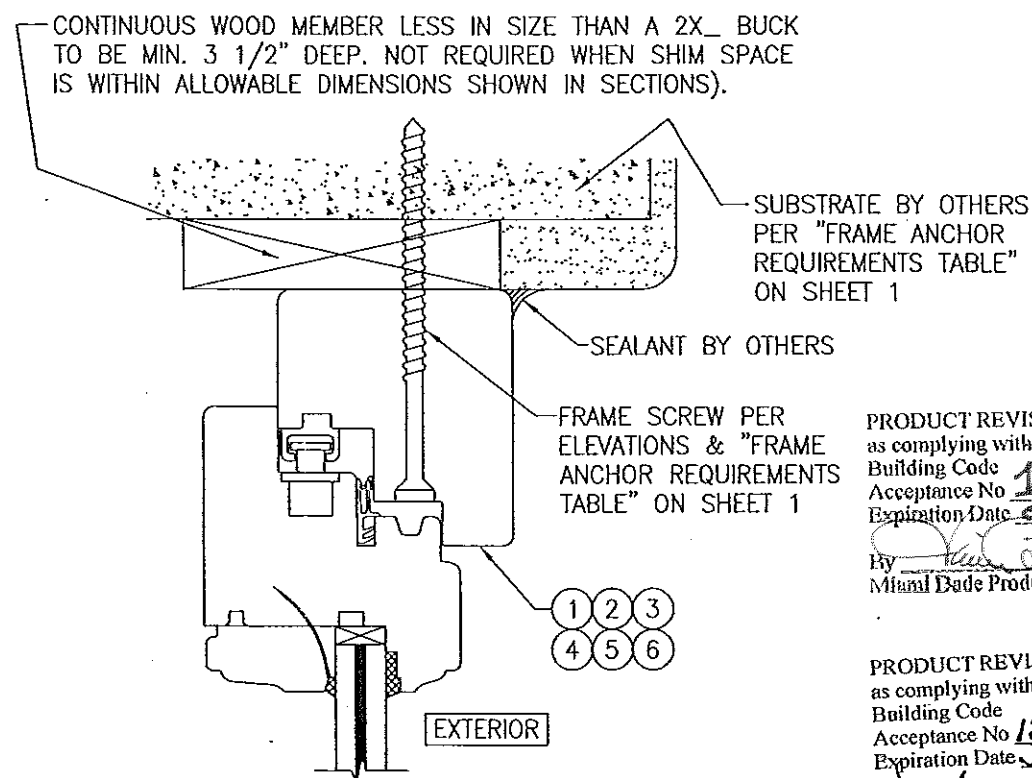
BTI FRAME ANCHOR PER ELEVATIONS & "FRAME ANCHOR REQUIREMENTS TABLE" ON SHEET 1



OPTIONAL BTI SCREW DETAIL

(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

CONTINUOUS WOOD MEMBER LESS IN SIZE THAN A 2X_ BUCK TO BE MIN. 3 1/2" DEEP. NOT REQUIRED WHEN SHIM SPACE IS WITHIN ALLOWABLE DIMENSIONS SHOWN IN SECTIONS).



OPTIONAL DIRECT MOUNT DETAIL TO SUBSTRATE WITH SPACER

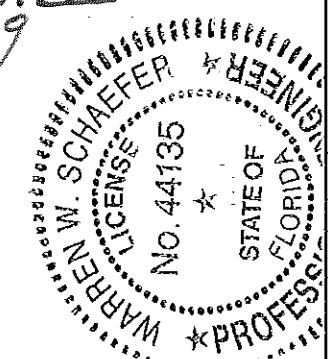
(HEAD SECTION SHOWN, SILL & SIDES ARE INSTALLED THE SAME)
(FOR DETAIL NOT SHOWN, SEE OTHER SECTIONS)

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 14-0428.21
Expiration Date 01/08/2019

By *Manuel Perez*
Miami Trade Product Control

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No. 13-1105.09
Expiration Date Jan. 8, 2019

By *Manuel Perez*
Miami Trade Product Control



DRAWN BY: W.R.M.		CHECKED BY: W.W.S.	
PLOT: 1-2		DATE: 04/03/08	
DATE	BY	REVISION DESCRIPTION	NO.
DRAWING TITLE IN-SWING IMPACT WOOD CASEMENT WINDOW			
CONSULTANTS W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809) 7480 150TH COURT NORTH PALM BEACH GARDENS, FL 33418 PHONE: 561-744-3424		MANUFACTURER TISCHLER UND SOHN (USA) LTD. SIX SUBURBAN AVENUE STAMFORD, CONNECTICUT 203-674-0600	
DRAWING NO. 1531		REV. B	
SHEET NO. 12		OF 14	

